

# **GREENING** the **GOV**

# **GREEN**



**A Guide to  
Implementing  
Executive Order  
13101**

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**White House  
Task Force on Recycling**

**Revised February 2001**





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# FOREWORD

**T**he Federal government has the obligation to protect the health and welfare of the American people and our economy. It is widely recognized that to fulfill these obligations we must preserve and protect the environmental and natural resources of this country. As Federal employees we must continually strive to find new and better ways to provide these protections to each American citizen. In blazing a path to address these responsibilities, the Federal government has pledged to lead in pollution prevention, recycling and waste prevention, affirmative procurement, environmentally preferable products and services, energy and water use reduction, and environmental management. Executive Order 13101, along with a number of laws, executive orders, agency directives, policies, and mission statements incorporate these very elements. To assist in the understanding of the interdependencies of Executive Order 13101 and other Federal policies, a synopsis of pertinent information is provided in this document to further illuminate the many facets of the Administration's plan to provide environmental protection and insure the health of the American people and the economy.

**Pollution Prevention**—It is the national policy that, whenever feasible, pollution should be prevented or reduced at the source. Pollution which cannot be prevented should be recycled in an environmentally safe manner. Pollution which cannot be prevented or recycled should be treated in an environmentally safe manner. Further, disposal into the environment should be a last resort and conducted in an environmentally safe manner.

The U.S. Government's general pollution prevention policy should be achieved through "source reduction" and other practices reducing or eliminating pollutant creation through increased efficiency in the use of raw materials,

energy, water, or other resources, or through protection of natural resources by conservation.

The Federal government has set a goal for reducing toxic chemical releases into the environment from Federal facilities by 50% by the year 2000. To implement this and other pollution prevention goals, Federal agencies are required to prepare pollution prevention strategies. More than 5000 Federal facilities across the Nation and around the world have prepared pollution prevention plans to implement these policies at the field level.

The environmental review process established under the National Environmental Policy Act (NEPA) ensures against potential adverse impacts of proposed Government activities by requiring that alternatives be fully considered for any proposed action by the Federal Government. This policy is established in the Pollution Prevention Act of 1990, supported by NEPA, and reinforced by Executive Order 12856, "Federal Compliance With Right-to-Know Laws and Pollution Prevention Requirements."

**Recycling and Waste Prevention**—The Federal government has established goals and policies for reducing solid waste and using recycled products at Federal facilities. The policies establish a clear linkage between programs to collect and supply materials for recycling and the need to design efficient and effective programs to procure products derived from recovered materials. In action, these policies conserve natural resources and energy, and reduce the need to dispose of waste materials.

**Affirmative Procurement**—Through its purchasing decisions, the Federal government has the opportunity to recognize and affirm environmental policies and goals and stimulate markets

for environmentally preferable products and services. Currently, products that can be made with recovered materials are designated by the Environmental Protection Agency (EPA) and procuring agencies purchase those products with the highest recovered material level practicable. To date, 54 items have been designated as containing recovered materials. Further, 20 government agencies have prepared “Affirmative Procurement Programs” outlining agency plans for implementing this policy. To assure this happens, each Federal agency has appointed an Agency Environmental Executive (AEE) responsible for implementing this policy.

This Comprehensive Procurement Guidelines (CPG) policy is contained in the Resource Conservation and Recovery Act (RCRA) and is supported by Executive Order 13101, Greening the Government Through Waste Prevention, Recycling and Federal Acquisition. (See Appendix A for full text of Executive Order 13101 and Appendix B for a list of Agency Environmental Executives.)

***Environmentally Preferable Products and Services***—In an effort to broaden the environmental perspective on products and services provided to the government, the EPA has initiated a program to have the Federal government purchase Environmentally Preferable Products-EPP (i.e., “those products having lesser or reduced impacts on human health and the environment when compared to competing products or services”<sup>1</sup> that serve the same purpose). This program is designed to analyze multiple and varied environmental characteristics associated with a product or service in purchasing decisions. This program reflects the Federal Government’s desire to shift from single evaluations (e.g., impacts to only air quality) to a multi-media approach. As a first step towards encouraging EPP purchases by the Government, the EPA recently issued *Final Guidance on*

*Environmentally Preferable Purchasing*. (See Appendix M for details.)

***Energy and Water Use Reduction***—Recognizing the significant environmental and economic benefits accompanying energy and water use reduction, the Federal Government is actively promoting reduced energy and water consumption and increased water and energy efficiency at Federal facilities. On June 3, 1999 the President issued E.O. 13123, Greening the Government Through Efficient Energy Management. In E.O. 13123, the Federal Government has set a goal to reduce greenhouse gas emissions attributed to Federal energy consumption by 30 percent by 2010 and to reduce energy consumption in Federal facilities by 30 percent by 2005. The Energy E.O. also requires the Federal Government to purchase life-cycle, cost-efficient computer equipment. Many Federal facilities are instituting comprehensive energy and water audits and implementing environmentally beneficial landscaping practices.

Each of these efforts is supported by the Federal Energy Management Program (FEMP) in the U.S. Department of Energy (DOE). This policy is established in the Energy Policy Act of 1992 and is supplemented by Executive Order 13123 as well as the Executive Memorandum on Environmentally and Economically Beneficial Practices on Federal Landscaped Grounds. Moreover, a new Executive Order, Developing and Promoting Biobased Products and Bioenergy, will lead to an expanding array of new environmentally friendly products and processes.

***Other Activities***—The U.S. Government has incorporated into agency operating policies other environmentally beneficial objectives. Presidential Executive Orders that promote these objectives include:

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<sup>1</sup> As defined by E.O. 13101 and EPA’s EPP Guidelines.

E.O. 12843, Procurement Requirements and Policies for Federal Agencies for Ozone-Depleting Substances, mandates that agencies implement cost-effective programs to modify specifications and contracts that require the use of ozone-depleting substances and to substitute non-ozone depleting substances to the extent economically practicable.

E.O. 13031, Federal Alternative Fueled Vehicle Leadership, commits the Federal government to exercise leadership in the use and buying of energy-efficient alternative fueled vehicles.

E.O. 13134, Developing and Promoting Biobased Products and Bioenergy, commits the Federal government to increased research, development, and promotion of biobased products and bioenergy.

E.O. 12969, Federal Acquisition and Community Right-to-Know, requires Federal agencies, to the greatest extent practicable, to contract with companies that report in a public manner on toxic chemicals released to the environment. This E.O. declares that the government will purchase supplies and services that have been produced with a minimum adverse impact on community health and the environment.

Executive agencies are currently reviewing and revising government specifications and standards for products and services to identify opportunities to eliminate or reduce environmentally harmful materials and substances and include other descriptive factors, such as recovered material content. Additionally, the U.S. government actively supports the development of new, cost effective, innovative products and technologies that are more environmentally sound than current technologies. The Federal government is also encouraged to incorporate environmentally sound principles, such as “life cycle cost analysis” and “total cost accounting” into the planning stages for projects designed to meet the goals and polices delineated in various environmental executive orders and national policies. The National Institute of Standards

and Technology (NIST) has developed new decision-support software to conduct such analysis called Building for Environmental and Economic Sustainability (BEES). For more information contact Barbara Lippiatt (301)975-6133, The web site is [www.whatchamacallit.com](http://www.whatchamacallit.com).

These tools consider the full environmental cost of products and services purchased by the government beginning with the impacts of initial resource recovery to the ultimate disposal of the product. The incorporation of environmentally sound principles is included in all of the environmental executive orders as well as various Government-wide directives and agency-specific policy documents.

**Community Right-to-Know**—The Federal government implements “Community Right-To-Know policies ensuring that all government installations serve as good neighbors to the citizens and communities surrounding those facilities. To protect the public in the event of an accidental release of hazardous chemical substances in the community, Federal facilities work with local governments on emergency planning and preparedness. Federal facilities also publicly provide information to the community regarding potentially hazardous chemicals and substances at facilities. The Federal government requires that those entities provide a service or product to certify compliance with community right-to-know requirements.

**Environmental Management**—Many agencies have elected to organize their environmental and public health responsibilities under an umbrella policy and management system routinely called Environmental Management. This system aims to insure that environmental and public health considerations are addressed and incorporated into the day to day activities of the agency in carrying out their assigned mission. The system examines prospective actions by the agency and provides an analysis of possible impacts to the environment or human health. The agency is then able to take the appropriate actions to prevent those activities which may



cause harm or damage the environment or jeopardize the quality of human health.

The Code of Environmental Management Principles for Federal Agencies (CEMP), developed by EPA in response to Executive Order 12856, was produced to ensure consistent implementation of environmental management systems across the Federal government. The CEMP was formulated through the Interagency Pollution Prevention Task Force in which sixteen Federal agencies participated in the process of creating the CEMP. The five broad principles contained within the CEMP are: (1) manage-

ment commitment, (2) compliance assurance and pollution prevention, (3) enabling systems, (4) performance and accountability, and (5) measurement and improvement. Adherence to these principles will help assure environmental performance that is pro-active, flexible, cost effective, integrated, and sustainable.

In March 1997, EPA published the Implementation Guide for the CEMP. The guide may be found on EPA's web page under the Office of Enforcement and Compliance Assurance.





# INTRODUCTION

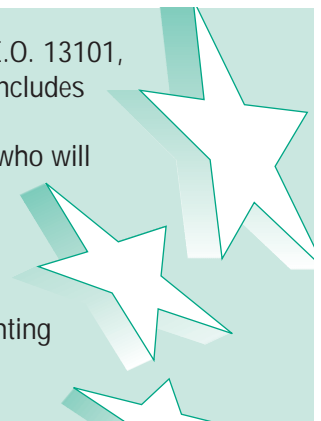
**T**he Foreword addressed the universe of Federal policies and programs in place for the government to do its part in protecting the environment. The White House Task Force on Greening the Government Through Waste Prevention and Recycling prepared this document to familiarize Federal agency personnel with Executive Order 13101 and to help them understand its intent. By providing a straight-forward explanation of the requirements of the new order and information on the best ways to comply with it, this document is intended to help Federal employees do what E.O. 13101 has directed.

Since passage of the Resource Conservation and Recovery Act (RCRA) in 1976, the Federal Government has had a mandate to “Buy Recycled.” We have had some successes. More can be done. Executive Order 13101 reaffirms the Federal government’s commitment to buy recycled. This users’ guide will clearly lay out the linkages among the acquisition, recycling, and waste prevention activities mandated by law and the executive order. It includes guidance on the prevention of waste wherever practical, the recycling of materials whenever possible, and finally the acquisition by the Federal government of goods manufactured from recycled materials or the purchase of green services.

cluded materials or the purchase of green services.

*Debunking the Myths*— “Buying recycled” and reducing waste are not only required by law and E.O. 13101, but are sound business practices. There are three common myths surrounding the purchase of recycled products. One myth about recycled products is that they are inferior (**performance**). Most recycled products meet the same technical and quality specifications as their virgin counterparts and may provide superior characteristics. Another dispelled myth is that recycled products cost more (**price**). This myth has been perpetuated because at one time recycled products did cost more. However, today many recycled products, such as paper, are cheaper than virgin products. And in most cases the products are at least priced competitively. The final myth to be de-bunked is that recycled products are not readily available (**availability**). That also used to be the case, but no more. American industry has responded to the demand and retooled to utilize recycled feed stocks, and in some cases, have re-engineered products to be readily recycled. Every day more and more products from recycled materials are being made available in ever greater quantities. Price and availability are interconnected. If not enough people buy the products,

The purpose of this guide is to describe not only requirements in law (RCRA) and in E.O. 13101, but also the benefits to those achieving compliance. The audience for this document includes not only Federal agencies, but state and local governments using Federal funds and contractors who manage government facilities. Within these Federal agencies, those who will find this guidance most useful include: the Agency Environmental Executive (AEE), recycling and facilities managers, agency supply personnel, specification writers, purchasing officials, contracting officials, and product users. This guide is designed to correspond to the various sections and requirements of E.O. 13101. Each chapter provides a section of the order in italics followed by systematic guidance on implementing that portion of the order and examples.



the fewer that are produced and the more each unit will cost. It's simple economics.

There are a number of direct reasons why procuring agencies should reduce waste and/or buy recycled products:

***Saving Money*** — In the long run, buying recycled, recyclable, and waste-reduced products can reduce government costs, especially if life-cycle methodologies are employed to analyze true government costs, especially waste management.

***Creating Jobs and Economic Development Opportunities*** — To maintain and expand recycling industries, end markets for recycled products need to continue to grow. Recent studies of employment in northeast and southern states, bolstered by studies of the re-manufacturing industry, indicate that recycling activities employ more than 2.5 percent of the manufacturing workers in America. Applying these studies to the entire nation, recycling and re-manufacturing activities account for approximately one million manufacturing jobs and more than \$100 billion in revenue.

***Conserving Resources and Energy*** — Buying recycled products and reducing waste reduces dependence on virgin materials and saves energy. The extraction and processing of raw materials into manufacturing feed stocks are some of the most energy-intensive activities of industry. In 1996, recycling resulted in an annual energy savings of at least 408 trillion British Thermal Units (Btus), equal to the amount of energy used in four million households annually. In 2005, recycling is conservatively projected to save 605 trillion Btus, equal to the yearly energy used in six million households.

***Creating New Markets*** — Buying recycled products helps create and strengthen long-term, stable markets for recyclable materials and helps improve revenues from recycling programs. The vast supply of dependable low-cost materials from community collection programs has spurred many businesses to develop new

and innovative technologies and products which leads to competition and better products.

***Reducing the Amount of Recyclable Materials Going to Disposal*** — Recycled content products create markets, further stimulating recovery of under-utilized materials and decreasing the amount of material being disposed in landfills and combustion facilities. In 1996, recycling and composting diverted a total of 130 million cubic yards of material away from landfills. In 2005, the projected diversion will be 195 million cubic yards. To handle this much additional waste—the situation we would have faced without recycling—we would have needed 64 more landfills, each of them large enough to serve the combined city populations of Dallas and Detroit, to be opened in our communities in 1996. Similarly, without recycling, we would need 92 such landfills in 2005.

***Preventing Other Kinds of Pollution*** — Many pollutants are released by the extraction and processing of raw materials. Some of these pollutants are known to be carcinogenic or toxic to humans, and some have effects, such as creating acid rain, which are damaging to natural habitats. In addition, for many new and high-volume usage chemicals, the long-term effects are unknown. Extensive life-cycle analyses find overall emissions to all environmental media to be lower when we used recovered rather than virgin materials. Recycling is a highly effective strategy for reducing all the categories of health risks and pollution resulting from virgin material extraction and processing.

There are also a number of indirect reasons why government facilities should reduce wastes and buy green products and services.

***Convincing Manufacturers to Use More Recovered Materials*** — In order to use recovered materials, manufacturers must invest substantial capital in processing and other equipment. To support the investments, there must be a demand for the finished recycled content products. Federal buying of recycled content

products helps create that demand. Manufacturing is driven by the marketplace. If a demand exists for recycled content products, manufacturers will make those products. It's as simple as that. Without sufficient economic incentive, manufacturers may not invest in recycling, even if it is the "right thing to do." The marketplace potential for recycled goods is expanding rapidly. More and more products made from recycled material are available. The most immediate recycling challenge today is to educate consumers about the benefits of buying recycled and change consumer buying habits, especially those of large institutional buyers. And the Federal Government is the largest buyer of all!

***Providing a Pro-active Rather Than a Reactive Approach to the Waste Management Problem*** — Pro-actively establishing "Buy Recycled" programs allows government agencies to design programs that meet their specific needs.

***Setting an Example for the Private Sector*** — Since government spending at all levels represents 20 percent of the Gross National Product (GNP), government agencies can lead the "Buy Recycled" effort by setting an example for the

private sector. Public agencies can also demonstrate product performance and exhibit leadership in developing product specifications.

***Enhancing an Organization's Image*** — Buying recycled products can foster goodwill among employees and citizens. In other words, buying recycled, recyclable, and waste-reduced products is a win-win proposition for the government, the taxpayers, and for the nation as we conserve and use our natural resources wisely.

***For Our Children's Future*** — As we enter the 21st century, the earth's natural resources are not limitless. Even renewable resources are available only up to a limited annual capacity. Action needs to be taken today to maximize the many economic, environmental, and societal benefits that recycling provides. If we work together now we can ensure that our children and their children will enjoy a material and environmental quality of life even better than our own.

For more information about the benefits of recycling check out the brochure "Recycling for the future...Consider the benefits" at [www.ofee.gov](http://www.ofee.gov).



# Part I Preamble

***Sec. 101. Consistent with the demands of efficiency and cost effectiveness, the head of each Executive agency shall incorporate waste prevention and recycling in the agency's daily operations and work to increase and expand markets for recovered materials through greater Federal Government preference and demand for such products. It is the national policy to prefer pollution prevention whenever feasible.***

***Pollution that cannot be prevented should be recycled; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner. Disposal should be employed only as a last resort.***

On September 14, 1998, the President signed Executive Order (E.O.) 13101, "Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition" (Appendix A). This order strengthens and expands the Federal government's commitment to recycling, waste prevention, and buying recycled content and environmentally preferable products and services, and replaces E.O. 12873. E.O. 13101 takes the next giant step to continue Federal leadership in helping to develop markets for recovered materials through Federal purchasing.

The E.O. reaffirms that it is the national policy to prevent pollution whenever feasible. Pollution which cannot be prevented should be recycled. Pollution that cannot be prevented or recycled should be treated in an environmentally safe manner. Further, disposal should be employed only as a last resort. Please refer to the foreword for a discussion of this national policy. Pollution prevention has many aspects; it is more than hazardous materials minimization. It is also solid waste reduction and recycling. This E.O. addresses the latter and requires that each Federal agency incorporate waste prevention and recycling into their daily operations.

Legislation and Presidential direction requiring the purchase of recycled content products has been evolving since 1976, when Congress established a buy recycled policy (RCRA Sec. 6002; 42 U.S.C. 6962). E.O. 12873, Federal Acquisition, Recycling, and Waste Prevention, issued in October 1993, fostered the Federal response to existing RCRA mandates to reduce solid waste, build markets for recycled content products, encourage new technologies, and protect the environment by increasing purchases of recycled content products. Since the signing of E.O. 12873, the Federal government has more than quadrupled its purchases of recycled paper and increased purchases of other recycled content products. In 1986, only 13 states and a handful of local governments had buy recycled laws. Now, all 50 states, the District of Columbia, and hundreds of local governments have established legal requirements to purchase recycled content products. Additionally, more than 3,000 businesses, organizations, and associations across the country have made a significant environmental impact by increasing their purchases of recycled content products and materials.

***Sec. 102. Consistent with policies established by the Office of Federal Procurement Policy (OFPP) Policy Letter 92-4, agencies shall comply with executive branch policies for the acquisition and use of environmentally preferable products and services and implement cost-effective procurement preference programs favoring the purchase of these products and services.***

The E.O. requires that each Federal agency establish cost effective procurement preference programs consistent with the OFPP Policy Letter 92-4 for environmentally preferable products and services. OFPP Policy Letter 92-4, Procurement of Environmentally-Sound and Energy-Efficient Products and Services (Appendix F), clearly reflects the Federal gov-

ernment's preference for the acquisition of environmentally preferable products and services and establishes an affirmative procurement program favoring items containing the maximum practicable content of recovered materials. This language has also been incorporated into the Federal Acquisition Regulation (FAR). Please see appendix F for more information on these two policies.

***Sec. 103. This order creates a Steering Committee, a Federal Environmental Executive (FEE) and a Task Force, and establishes Agency Environmental Executive (AEE) positions within each agency, to be responsible for ensuring the implementation of this order. The FEE,***

***AEEs, and members of the Steering Committee and Task Force shall be full-time Federal Government employees.***

A new provision of E.O. 13101 establishes a White House Steering Committee and White House Task Force on Greening the Government Through Waste Prevention and Recycling. The E.O. further builds on the position of the Federal Environmental Executive (FEE) and Agency Environmental Executives (AEEs) established by E.O. 12873. Additional information on the FEE, the White House Steering Committee, the White House Task Force, and AEEs is provided in part three of this document.



Throughout this document you will see this symbol showing excellent examples of recycling, waste prevention, and/or affirmative procurement programs. These programs are all winners of the White House Closing the Circle Award. (See part eight for more details)





## Part 2 Definitions

For Purposes of this order:

**Sec. 201. “Environmentally preferable”** means products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.

**Sec. 202. “Executive agency” or “agency”** means an executive agency as defined in 5 U.S.C. 105. For the purpose of this order, military departments, as defined in 5 U.S.C. 102, are covered under the auspices of the Department of Defense.

**Sec. 203. “Postconsumer material”** means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. “Postconsumer material” is a part of the broader category of “recovered material”.

**Sec. 204. “Acquisition”** means the acquiring by contract with appropriated funds for supplies or services (including construction) by and for the use of the Federal Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, or demonstrated and evaluated. Acquisition begins at the point when agency needs are established and includes the description of requirements to satisfy agency needs, solicitation and selection of sources,

award of contracts, contract financing, contract performance, contract administration, and those technical and management functions directly related to the process of fulfilling agency needs by contract.<sup>1</sup>

**Sec. 205. “Recovered materials”** means waste materials and by-products which have been recovered or diverted from solid waste, but such term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process (42 U.S.C. 6903 (19)).

**Sec. 206. “Recyclability”** means the ability of a product or material to be recovered from, or otherwise diverted from, the solid waste stream for the purpose of recycling.

**Sec. 207. “Recycling”** means the series of activities, including collection, separation, and processing, by which products or other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacture of new products other than fuel for producing heat or power by combustion.

**Sec. 208. “Waste prevention”** means any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.

**Sec. 209. “Waste reduction”** means preventing or

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<sup>1</sup>While not specifically stated in the Executive Order, the term “acquisition” is intended to include the requisition process Federal activities use to obtain products from established supply sources (e.g., The Defense Logistics Agency (DLA) and General Services Administration (GSA)). The use of terms relative to procurement and purchasing should not be construed to mean the requirements of this Executive Order and various environmental laws, regulations, and other orders are not applicable to the supply community. The term acquisition, in its broad definition, encompasses all means of obtaining products or services. The Federal Property Management Regulations (FPMRs) contain guidance for the sequence of sources to be checked to satisfy requirements. It has never been the intention of any of the environmental laws, orders, etc., to circumvent the FPMRs and lay the responsibility of compliance solely on contracting officers. Everyone involved in the process is responsible for environmental considerations, starting with those stating the requirements and continuing through supply channels or procurement/contracting channels, whichever applies.

*decreasing the amount of waste being generated through waste prevention, recycling, or purchasing recycled and environmentally preferable products.*

**Sec. 210. “Life cycle cost”** means the amortized annual cost of a product, including capital costs, installation costs, operating costs, maintenance costs, and disposal costs discounted over the lifetime of the product.

**Sec. 211. “Life cycle assessment”** means the comprehensive examination of a product’s environmental and economic effects and potential impacts throughout its lifetime including raw material extraction, transportation, manufacturing, use, and disposal.

**Sec. 212. “Pollution prevention”** means “source reduction” as defined in the Pollution Prevention Act of 1990 (42 U.S.C. 13102), and other practices that reduce or eliminate the creation of pollutants through: (a) increased efficiency in the use of raw materials, energy, water, or other resources, or (b) protection of natural resources by conservation.

**Sec. 213. “Biobased product”** means a commercial or industrial product (other than food or feed) that utilizes biological products or renewable domestic agricultural (plant, animal, and marine) or forestry materials.

**Sec. 214. “Major procuring agency”** shall include any executive agency that procures over \$50 million per year of goods and services.

### Other Pertinent Definitions

1. “Affirmative procurement” is an agency’s strategy for maximizing its purchase of recycled content

products in accordance with Section 6002 of the Resource Conservation and Recovery Act. The buy recycled requirement applies to Federal agencies, state and local agencies using federal monies, and their contractors.

2. “EPA-designated item” means a product or category of products containing recovered materials that has been designated by the Environmental Protection Agency (EPA) in the Comprehensive Procurement Guidelines (CPG).

3. “Model facility” is an organization or activity who has made an outstanding contribution to waste prevention, recycling, and affirmative procurement through its leadership, investment in resources, and change in culture.

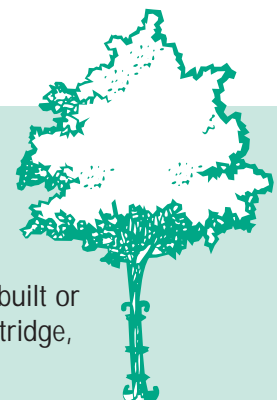
4. “Pilot project” means a trial of a waste prevention, recycling or affirmative procurement practice.

5. “Procuring agencies” means Federal, state, and local agencies, and their contractors, that use appropriated Federal funds to purchase EPA-designated items in accordance with Section 6002 of the Resource Conservation and Recovery Act (RCRA). (See Appendix H for further details.)

6. “Source reduction” (also see “pollution prevention”) is defined as any practice: (i) reducing the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and (ii) reducing the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.

## What is a recycled product?

A product made in whole or in part from material recovered from the waste stream. Many “recycled products” contain less than 100 percent recovered materials. Therefore, they are more accurately referred to as recycled content products. Examples include a rebuilt or remanufactured commodity, such as a rebuilt engine or a remanufactured laser toner cartridge, plastic lumber, recycled paper, etc.





## Acronyms

AAMA	American Automobile Manufacturer's Association	DOI	Department of the Interior
AEE	Agency Environmental Executive	DOJ	Department of Justice
AFB	Air Force Base	EDI	Electronic Data Interchange
ANSI	American National Standards Institute	EO	Executive Order
API	American Petroleum Institute	EOIAG	Executive Order Inter-Agency Advisory Group
APP	Affirmative Procurement Program	EPA	Environmental Protection Agency
ARNG	Army National Guard	EPG	Environmental Products Guide
ASTM	American Society for Testing and Materials	EPP	Environmentally Preferable Products
BPCC	Biobased Products Coordination Council	FAC	Federal Acquisition Circular
Btu	British Thermal Unit (an energy measurement)	FAI	Federal Acquisition Institute
CASUs	Cooperative Administrative Support Units	FAR	Federal Acquisition Regulation
CD-ROM	Compact Disk-Read Only Memory	FEDSTRIP	Federal Standard Requisitioning and Issuing Procedures
CEMP	Code of Environmental Management Principles	FEE	Federal Environmental Executive
CEQ	Council on Environmental Quality	FFCA	Federal Facility Compliance Act
CFR	Code of Federal Regulations	FY	Fiscal Year
CID	Commercial Item Description	FPMR	Federal Property Management Regulations
CMLS	GSA's Centralized Mailing List Service	FR	Federal Register
CPG	Comprehensive Procurement Guidelines	GGBF	Ground Granulated Blast Furnace
DAMES	Defense Automated Message Entry System	GNP	Gross National Product
DAU	Defense Acquisition University	GPO	Government Printing Office
DLA	Defense Logistics Agency	GPRA	Government Performance and Results Act
DLSC	Defense Logistics Service Center	GSA	General Services Administration
DoD	Department of Defense	HDPE	High Density Polyethylene
DOE	Department of Energy	IFMS	Interagency Fleet Management System
		ILSAC	International Lubricant Standardization and Approval Committee
		ISO	International Organization for Standardization

JCP	Joint Committee on Printing	PCIE	President's Council on Integrity and Efficiency
KSC	Kennedy Space Center	PET	Polyethylene Terephthalate
LDPE	Low Density Polyethylene	PMB	GSA's Property Management Branch
MUFFIN	Multi-User File of Interagency News	PVC	Polyvinyl Chloride
NASA	National Aeronautics and Space Administration	QPL	Qualified Products List
NEPA	National Environmental Policy Act	RCRA	Resource Conservation and Recovery Act
NIST	National Institute of Standards and Technology	RFP	Request for Proposal
NNMC	National Navy Medical Center	RMAN	Recovered Materials Advisory Notice
OEMs	Original Equipment Manufacturers	RRRP	Resource Recovery and Recycling Program
OFPP	Office of Federal Procurement Policy	U.S.C.	United States Code
OMB	Office of Management and Budget	USDA	U.S. Department of Agriculture
OSWER	EPA's Office of Solid Waste and Emergency Response	USPS	U.S. Postal Service
P.L.	Public Law	VMF	Vehicle Maintenance Facility



## Part 3

# The Roles and Duties of the Steering Committee, Federal Environmental Executive, Task Force, and Agency Environmental Executives

Executive Order 13101 demonstrates a unique and highly significant commitment to environmentally friendly approaches to recycling, waste management, and acquisition. As a result of this Executive Order and the implementation now underway, the Federal community will dramatically increase (1) waste reduction at the source, (2) recycling, and (3) the procurement of recycled content and environmentally preferable products and services. This will be done in the most economically sound and environmentally efficient methods possible. The Federal Environmental Executive (FEE) has been tasked to work with the Steering Committee, the Task Force, and the Agency Environmental Executives (AEEs) to make that happen quickly. As required by the E.O., the FEE recently issued the first Federal Government-wide strategic plan developed by a Federal interagency working group which sets forth our strategies and goals for implementing this Executive Order.

Successful recycling is a three-phase interdependent cyclical process. It includes (1) the collection and separation of used but recyclable materials. Those materials are then (2) processed and manufactured into new products, replacing the need for some virgin materials. Finally, as these products are returned to the marketplace as new consumables, they are (3) purchased and used, thus completing the cycle. Recycling is not only the right thing to do, it makes sound economic sense on many different levels. Moreover, the government has an obligation to lead the way by buying products manufactured from the materials it recovers - to "close the circle" among the recycling, manufacturing, and purchasing sectors.

Each major procuring agency has an AEE at the Assistant Secretary or equivalent level to work internally, and with the Steering Committee, and the FEE to assure complete and rapid implementation of the Executive Order. However, as demonstrated by the White House Closing the Circle Award winners referenced throughout this document, it is the thousands of Federal employees from all over the country in all agency programs, who will take on the challenge and successfully implement E.O. 13101. As a team, the entire Federal community, not just procurement, recycling, or environmental programs, must work together to make the ideals of the Order a reality.

**Sec. 301. Committees, Executives, and Task Force.** (a) *Steering Committee.* There is hereby established a Steering Committee on Greening the Government through Waste Prevention and Recycling (“Steering Committee”). The Steering Committee shall be composed of the Chair of the Council on Environmental Quality (CEQ), the Federal Environmental Executive (FEE), and the Administrator for Federal Procurement Policy (OFPP). The Steering Committee, which shall be chaired by the Chair of the CEQ, is directed to charter a Task Force to facilitate implementation of this order, and shall provide the Task Force with policy direction in such implementation.

## Steering Committee

The White House Steering Committee is comprised of the Federal Environmental Executive (FEE), the Chair of the Council on Environmental Quality (CEQ), and the Administrator for Federal Procurement Policy (OFPP) within the Office of Management and Budget (OMB). The White House Steering Committee establishes policy for the implementation of E.O. 13101. The composition of the Steering Committee is important because the senior environmental advisor to the President and the senior procurement advisor to the President are working as a team with the Federal Environmental Executive to implement the E.O. The environmental community and the procurement community have to work together as a team to green the Federal government; it requires a team effort not only at the national level, but also at the field level.

(b) *Federal Environmental Executive.* A Federal Environmental Executive, Environmental Protection Agency, shall be designated by the President. The FEE shall chair the Task Force described in subsection (c), take all actions necessary to ensure that the agencies comply with the requirements of this order, and generate a biennial report to the President.

## Federal Environmental Executive

E.O. 12873, the predecessor to E.O. 13101, created the position of the Federal Environmental Executive (FEE). The President designated the FEE to take all actions necessary to ensure that agencies comply with the requirements of the E.O.

(c) *Task Force.* The Steering Committee shall charter a Task Force on Greening the Government through Waste Prevention and Recycling (“Task Force”), which shall be chaired by the FEE and composed of staff from the major procuring agencies. The Steering Committee, in consultation with the agencies, shall determine the necessary staffing and resources for the Task Force. The major procuring agencies shall provide, to the extent practicable and permitted by law, resources and support to the Task Force and the FEE, upon request from the Steering Committee. The Task Force shall have the duty of assisting the FEE and the agencies in implementing this order, subject to policy direction provided by the Steering Committee. The Task Force shall report through the FEE to the Chair of the Steering Committee.

## Task Force

Under E.O. 13101, on October 26, 1998, the White House Council on Environmental Quality (CEQ) chartered a Task Force, with the FEE as its chair. The Task Force advises and assists the Steering Committee and the Federal agencies, makes recommendations concerning policy, facilitates implementation, provides a centralized focal point for assistance and direction, and communicates and enhances knowledge of the provisions of E.O. 13101. The Task Force is comprised of agency representatives from various major procuring agencies, i.e., Department of Defense (DoD), U.S. Department of Agriculture (USDA), Department of Energy (DOE), General Services Administration (GSA), and the Environmental Protection Agency (EPA).

*(d) Agency Environmental Executives (AEEs). Within 90 days after the date of this order, the head of each major procuring agency shall designate an AEE from among his or her staff, who serves at a level no lower than the Assistant Secretary level or equivalent, and shall notify the Chair of CEQ and the FEE of such designation.*

## **Agency Environmental Executives**

Agency Environmental Executives (AEEs) are an essential element of E.O. 13101 because they constitute the backbone of the Order. They provide the direction, integration, and coordination of the E.O. requirements in their individual agencies. E.O. 13101 recognizes the importance of the AEEs by requiring the head of each major procuring agency to designate an AEE at a level no lower than the Assistant Secretary or equivalent. (A list of Agency Environmental Executives as of the publication date of this document, is provided in Appendix B. An updated list can be found at [www.ofee.gov](http://www.ofee.gov).)

**Sec. 302. Duties.** *(a) The Federal Environmental Executive. The FEE, working through the Task Force, and in consultation with the AEEs, shall:*

*(1) Develop a Government-wide Waste Prevention and Recycling Strategic Plan ("Strategic Plan") to further implement this order. The Strategic Plan should be initially developed within 180 days of the date of this order and revised as necessary thereafter. The Strategic Plan should include, but is not limited to, the following elements:*

- (a) direction and initiatives for acquisition of recycled and recyclable products and environmentally preferable products and services;*
- (b) development of affirmative procurement programs;*
- (c) review and revision of standards and product specifications;*
- (d) assessment and evaluation of compliance;*
- (e) reporting requirements;*

*(f) outreach programs to promote adoption of practices endorsed in this order; and*

*(g) development and implementation of new technologies that are of environmental significance.*

*(2) Prepare a biennial report to the President on the actions taken by the agencies to comply with this order. The report also may incorporate information from existing agency reports regarding Government-wide progress in implementing the following Executive Orders: 12843, Procurement Requirements and Policies for Federal Agencies for Ozone Depleting Substances; 13031, Federal Alternative Fueled Vehicle Leadership; 12845, Requiring Agencies to Purchase Energy Efficient Computer Equipment; 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements; 12902, Energy Efficiency and Water Conservation at Federal Facilities; and 12969, Federal Acquisition and Community Right-to-Know.*

*(3) In coordination with the Office of Federal Procurement Policy, the Environmental Protection Agency (EPA), the General Services Administration (GSA), and the Department of Agriculture (USDA), convene a group of acquisition/procurement managers and environmental State, and local government managers to work with State and local governments to improve the Federal, State, and local governments' use of recycled products and environmentally preferable products and services.*

*(4) Coordinate appropriate Government-wide education and training programs for agencies.*

*(5) Establish committees and work groups, as needed, to identify, assess, and recommend actions to be taken to fulfill the goals, responsibilities, and initiatives of the FEE. As these committees and work groups are created, agencies are requested to designate appropriate personnel in the areas of procurement and acquisition, standards and specifications, electronic commerce, facilities management, pollution pre-*



*vention, waste prevention, recycling, and others as needed to staff and work on these initiatives. An initial group shall be established to develop recommendations for tracking and reporting requirements, taking into account the costs and benefits of such tracking and reporting. The Steering Committee shall consult with the AEEs before approving these recommendations.*

**Strategic Plan** — Section 302 of E.O. 13101 directed the development of a government-wide Strategic Plan. On March 12, 1999, the FEE and Chair of the White House Task Force on Greening the Government Through Waste Prevention and Recycling unveiled the first Government-wide Strategic Plan for Waste Prevention, Recycling, and Federal Acquisition. The Plan will be the cornerstone for greening the government's daily activities. It presents a vision and a road map for future initiatives; describes specific strategies and actions, and identifies stakeholders and performance measures.

The White House Task Force, in collaboration with an interagency work group consisting of representatives from various Federal agencies, and in consultation with the AEEs of the 26 major procuring agencies, developed the Strategic Plan that covers the requirements of the E.O. and launches green government into the 21st Century.

To further enhance distribution and communications to the Federal, state and local governments, industry, and the American taxpayer, each agency is developing, or will soon have in place their own strategic plan. The Strategic

Plan can also be accessed at [www.ofee.gov](http://www.ofee.gov).

**Greening the Government Report to the President**

— The FEE and members of the Task Force are directed to prepare a report to the President on actions taken by the Federal agencies to comply with the E.O. The report will contain facts and figures that portray a clear and concise picture of efforts to green the government. There will be an overview of other environmental and energy executive orders and a description of major accomplishments including case studies and sample programs. Future innovative projects to expand "greening the government" opportunities within Federal agencies will be addressed, and information will be provided on outreach and communications efforts with the Federal government and the public. This report is to be submitted to the President on Earth Day 2000.

**Outreach with State and Local Governments** —

The FEE and the Task Force anticipate this outreach effort to be an on-going process. We are working with states and local governments on an individual basis and will avail ourselves of numerous opportunities to address this effort at national events such as the annual National Recycling Congress (NRC) and America Recycles Day (ARD). Currently the FEE and CEQ are heading up the National Recycling Challenge. This effort requires commitments by industry, local and state governments, Federal agencies, national associations, and academia to do more in the area of recycling. Commitments have been received from all sectors on areas of recycling efficiency including new designs, buying green, and public awareness. The web site, [www.ofee.gov](http://www.ofee.gov), has more information.

**New Goal** — One of the unique aspects of the Government-Wide Strategic Plan to implement *E.O. 13101* is its establishment by a new national goal for the Federal government of 35 percent waste diversion by 2005. All Federal agencies are expected to advance the accomplishment of this national goal with respect to their respective waste diversion rates. The Strategic Plan also requires Federal agencies to demonstrate significant increases in the procurement of recycled content products from each preceding year through 2005.

**Education and Training Programs** — The Task Force is working with the Defense Acquisition University (DAU) to incorporate language infusing the elements of E.O. 13101 into their courses. Training will be provided for the DAU course directors and faculty on E.O. 13101 and its various components. The Task Force is working with the Federal Acquisition Institute (FAI) to develop a free web-based course on E.O. 13101 targeted toward acquisition personnel. (Refer to part eight for additional information.)

Task Force representatives have conducted, and continue to carry out, training on purchasing of recycled and environmentally preferable products and services for contracting officers and contract specialists from the field and headquarters operations. The Task Force is also training Program Managers and Materials Managers on E.O. 13101 and their role in specifying and requiring green products.

**Committees and Work Groups** — Numerous work groups have been established under E.O. 13101. One of the first was the Reporting Workgroup, co-chaired by a representative from OFPP and a representative from the Task Force. The work group is striving to streamline and simplify future reporting requirements while also taking into account the costs and benefits of such tracking and reporting. The primary emphasis of this work group will be to develop recommendations for establishing a cost-effective reporting system for procurement of recycled products. The work group is examining each EPA-designated item and focusing on how to obtain the data. Alternative streamlined methods of reporting are also being reviewed. The work group will attempt to reduce manual reporting to the maximum extent practicable. Another work group has been established on Contracts to examine contract requirements and how best to incorporate recycled and environmentally preferable products into them. As

needs arise, other work groups will be formed.

**(b) Agency Environmental Executives.** The AEEs shall:

- (1) translate the Government-wide Strategic Plan into specific agency and service plans;**
- (2) implement the specific agency and service plans;**
- (3) report to the FEE on the progress of plan implementation;**
- (4) work with the FEE and the Task Force in furthering implementation of this order; and**
- (5) track agencies' purchases of EPA-designated guideline items and report agencies' purchases of such guideline items to the FEE per the recommendations developed in subsection 302(a)(5) of this order. Agency acquisition and procurement personnel shall justify in writing to the file and to the AEE the rationale for not purchasing such items, above the micropurchase threshold (as set out in the Office of Federal Procurement Policy Act at 41 U.S.C. 428), and submit a plan and timetable for increasing agency purchases of the designated item(s).**
- (6) one year after a product is placed on the USDA Biobased Products List, estimate agencies' purchases of products on the list and report agencies' estimated purchases of such products to the Secretary of Agriculture.**

**Strategic Plan** — E.O. 13101 requires the AEE of each procuring agency to translate the Government-wide Strategic Plan into specific agency and service plans. Agencies will be afforded the challenging opportunity to identify and describe their goals and strategies in the areas of waste prevention, recycling, and Federal acquisition. Each AEE is then required to implement their plan and report to the FEE on their progress.



**T**he Department of Justice (DOJ) Agency Environmental Executive instituted a re-invention laboratory to comply with E.O. 13101. This lab establishes a diverse team with practical expertise to focus on specific areas of the E.O. Team members have backgrounds in such areas as safety, environmental law, and procurement. All bureaus of the Department of Justice are represented, as well as the White House Task Force on Waste Prevention and Recycling. This laboratory team will: translate the Government-wide Strategic Plan into agency-specific plans and implement those plans; create pilot/demonstration projects to test and evaluate environmentally preferable products; produce a department-wide guide to environmental compliance; develop training materials; develop inspection guidelines to identify and correct areas of non-compliance; and perform other E.O. related tasks. This effort will increase awareness of the E.O. and result in greater compliance with the E.O.

*Implementation of the E.O.* — The FEE held a State of the Order Meeting on September 15, 1999 to discuss the implementation of E.O. 13101 with the AEEs. Some AEE's presented a brief summary of their efforts to advance the

implementation of the E.O. within their respective agencies. Many AEEs have been very aggressive in implementing efforts to buy recycled products. Examples follow:

**S**everal Agency Environmental Executives (AEEs) have worked to increase the purchase of re-refined oil within their agencies. The Under Secretary of Defense for Acquisition and Technology directed the automatic substitution of re-refined oil for virgin lubricating oil when all Department of Defense (DoD) activities order certain grades of commercial oil. Since the DoD is the single largest Federal procuring agency, this initiative will have a profound effect on the purchasing of re-refined oil and building of markets for re-refined oil.

At the Department of Justice's (DOJ) Earth Day Celebration of April, 1998, the Attorney General announced a new initiative to strengthen the Department's commitment to recycling and the procurement of environmentally preferable products containing recycled content material. The Attorney General placed specific emphasis on increasing the Department's use of re-refined motor oil. The DOJ AEE notified bureau heads of several initiatives to increase the Department's use of re-refined oil. The DOJ AEE requested the Defense Logistics Agency (DLA) to fill all of the Department's orders for virgin motor oil with re-refined motor oil that meets the terms of E.O. 13101 unless the Department's purchasing agent provides a written exemption from the DOJ AEE. DOJ bureaus have developed strategies to comply with the exclusive use of re-refined motor oil. The bureaus' associated garages have committed to participate in the DLA's closed loop re-refined oil pickup and delivery systems. DOJ is exploring the possibility of private service stations providing DOJ vehicles with re-refined oil exclusively. DOJ has a fleet of 40,000 vehicles. (Additional information on the closed loop system can be found in section five.)

**T**he General Services Administration (GSA) made a decision to no longer purchase copier paper which was not in compliance with the Executive Order. GSA no longer sells virgin copier paper to Federal agencies. You can read the rest of the GSA story at <http://pub.fss.gsa.gov/pub/mtips/98s1.pdf>. Prior to GSA's decision, the DoD AEE and DOJ had initiated a policy directing the GSA to substitute 20 percent postconsumer content copier paper when DoD activities or DOJ bureaus ordered virgin copier paper. Other Federal agencies followed the DoD and DOJ lead. This was a great move forward in efforts to "green" government purchasing.

**Tracking Agencies' Purchases of EPA-designated Guideline Items** — Section 6002 of the Resource and Conservation Act (RCRA) requires a submission of a report to Congress every two years on actions taken by Federal agencies to implement the statute. In addition, E.O. 13101 requires that agencies track and report on their purchases of designated EPA guideline items. A combined FEE/OMB report is provided to Congress every two years. The FEE and OMB developed a reporting survey to obtain information on agencies' progress in purchasing recycled content products. At the present time, the reporting survey is sent to the top six major procuring agencies, and their data are used for the report to Congress. All major procuring agencies should have data available on their purchases of recycled content products.

**Micro-Purchase Threshold** — The E.O. requires that agency acquisition and procurement personnel justify in writing, to the file and to the AEE, the rationale for not purchasing EPA-designated items above the micro-purchase thresh-

old (as set out in the Office of Federal Procurement Policy Act at 41 U.S.C. 428) and submit a plan and timetable for increasing agency purchases of the designated item(s).

**L**et us be perfectly clear and avoid any confusion; the requirements of RCRA and E.O. 13101 apply to purchases below the micro-purchase threshold. For example, if you are purchasing tires that cost \$1,000; the mandatory green purchasing requirements of the E.O. and RCRA apply.

Written justification is not required for purchases below the micro-purchase threshold.

**Biobased Products** — The AEEE's should report to the Secretary of Agriculture on their estimated purchases of a biobased product one year after a product is placed on the USDA Biobased Products list. (Refer to part five and Appendix L for additional information.)



## Part 4

# Acquisition Planning, Affirmative Procurement Programs, and Federal Facility Compliance

*Sec. 401. Acquisition Planning. In developing plans, drawings, work statements, specifications, or other product descriptions, agencies shall consider, as appropriate, a broad range of factors including: elimination of virgin material requirements; use of biobased products; use of recovered materials; reuse of product; life cycle cost; recyclability; use of environmentally preferable products; waste prevention (including toxicity reduction or elimination); and ultimate disposal. These factors should be considered in acquisition planning for all procurement and in the evaluation and award of contracts, as appropriate. Program and acquisition managers should take an active role in these activities.*

The concept of **Acquisition Planning** is very general and encompassing. It simply means agencies need to consider a multitude of environmental factors before acquisition occurs. These factors include: eliminating unnecessary virgin material requirements and specifying the use of recovered materials instead (specification revision may be necessary); considering recyclability and product environmental preferability; the use of biobased products; reusing products if possible; preventing waste; and life cycle costs, including ultimate disposal costs.<sup>1</sup> In planning for acquisitions, those involved need to place serious emphasis up front on eliminating waste to save money, increase efficiency, and reduce pollution. This is consistent with the “green hierarchy”: reduce, reuse, and recycle, in that order. Part six of this document examines Waste Reduction and Environmentally

Preferable Products in greater detail.

To assist in the planning phase, under the Executive Order and RCRA, each Federal agency must develop and implement an Affirmative Procurement Program (APP). APPs are written statements as to how agencies plan to preferentially procure EPA-designated items. These plans must contain four elements specified in RCRA section 6002 and the Executive Order: preference program, promotion program, procedures for obtaining estimates and certifications of recycled content and for verifying the certifications, and annual review and monitoring. Parts four and five of this document will focus on what a recycled product is, what should be considered in buying recycled, and what constitutes an APP. Appendix G provides an outline of a model APP. A sample APP is being developed and will be available on our web site, [www.ofee.gov](http://www.ofee.gov).

### What Should Agencies Consider When Buying Recycled Content Products?

The process for purchasing recycled content products is the same as for purchasing non-recycled content products, except that the purchaser specifies the minimum recycled content that the products must contain. As discussed above in Part 1, EPA designates recycled content products in the Comprehensive Procurement Guideline (CPG), which is codified in 40 CFR part 247. When EPA designates products, it also recommends the level(s) of recycled content that

<sup>1</sup> Both NIST and FAI offer courses in life cycle costing.

agencies should specify and identifies agency, ASTM or other specifications that can be used when buying the recycled content products. These recycled content and specification recommendations are found in Recovered Materials Advisory Notices (RMANs). Both the CPG and the RMANs can be found on EPA's CPG web pages at [www.epa.gov/cpg](http://www.epa.gov/cpg). Additional information about the products designated in the CPG can also be found in the next chapter of this document.

As with any product purchase, agencies should keep in mind three factors when preparing to purchase recycled content products: quality/performance, availability, and cost. Agencies also should consider the compatibility of the item with their existing recycling program. For example, office papers containing groundwood cannot be recycled in a high grade white paper recycling program, but might be accepted in a mixed paper recycling program.

**Quality/Performance** — Today, both increased demand and major improvements in technology have resulted in recycled content products that are competitive in quality/performance or even superior to virgin goods. EPA does not designate products until after extensive interagency review, and unless it has documented that they can meet agencies' performance needs. Agencies such as GSA, GPO, and DoD maintain Qualified Products Lists for many products meeting their performance specifications. In addition, a number of private organizations (e.g., Green Seal and Scientific Certification Systems) also certify product quality, performance, and environmental claims.

If questions about product performance persist, agencies should consult other agencies using the product and/or consider testing the recycled content products. Tests should be "blind," so that the tester does not know whether or not the product contains recycled materials. Tests also should be conducted under ordinary conditions and should not expect a recycled content product to perform better than is expected of

non-recycled content products. For example, when GPO tests copier paper, the paper is used for a copying job, and both recycled content copier paper and non-recycled content copier paper must meet the same performance standards. Test results should be kept on file and shared with vendors, using agencies, and other organizations.

Using this process, the U.S. Conference of Mayors, in cooperation with major paper and copier printer manufacturers, recently conducted a study which showed 30 percent recycled content paper had equivalent performance to papers with 20-25 percent recycled content and virgin paper. For more information see the report at [www.epa.gov/cpg](http://www.epa.gov/cpg).

**W**hen comparing the cost and/or value of recycled content paper to virgin paper, agencies should compare papers of the same quality and grade. For example, in the past, several agencies have chosen high-quality recycled bond paper when they previously had used a commodity-grade virgin paper and then were surprised by the price differential. When the grade variable is ignored, it's easy to draw the wrong conclusion that the price difference is the result of recycled content only.

**Availability** — Some recycled content products are available throughout the country, while others are available only in certain regions. Because demand for each product varies, manufacturers and vendors may need additional lead time to fill an order. This is another important reason to create a steady demand for recycled goods.

To research the availability of various recycled content products consult these resources:

- Vendors for EPA-designated items. EPA prepares and annually updates lists of manufacturers and vendors of the designated items. The list can be found on the CPG web pages at [www.epa.gov/cpg](http://www.epa.gov/cpg). They also can be

ordered from the RCRA Hotline by calling (800) 424-9346 or TDD (800) 553-7672 for the hearing impaired. In the Washington, DC, area call (703) 412-9810 or TDD (703) 412-3323.

- The Official Recycled Products Guide, (800) 267-0707. This comprehensive directory of recycled content products contains over 5000 listings of manufacturers and distributors. The database is accessible electronically to members. Membership subscriptions, including a password for the database cost \$315. Paper copies of the directory are available for \$205.
- National Recycling Coalition/Buy Recycled Business Alliance, (703) 683-9025, x. 209.
- GSA's Environmental Products Guide, which can be obtained by calling the Centralized Mailing List Service at (817) 334-5215.
- Environmental Resource Guide, which is available from the American Institute of Architects bookstore, (202) 626-7475.
- Recycling at Work/National Office Paper Recycling Project; U.S. Conference of Mayors, (202) 293-7330.
- Office Green Buying Guide, Green Seal, (202) 331-7337.
- Trade associations, trade shows and exhibits.
- State and local buying guides and recycled products guides prepared by state or local recycling offices.

See Appendix C for additional recycled product sources and Appendix D for information on where agencies can buy recycled content products.

**Cost** — The cost of some recycled content products is lower than or comparable to their virgin counterparts, while others cost more than comparable products. Prices for both virgin and recycled content products depend on the spec-

ic product, quantities purchased, duration of contract, domestic and international economic conditions, geographic considerations, and many other factors.

### Cost Comparison of Green Purchasing, (First quarter 1999 prices)

Item	Price
Truck Tires (common size 11R22-5)	
New	\$240 - \$295
Retread	\$ 89 - \$110
Lubricating Oil - Commercial Specifications (10W-30)	
Virgin oil (box)	\$11.13
Re-refined oil (box)	\$10.95
Lubricating Oil - Military (Tactical) Specifications (15W-30)	
Virgin oil (5 gallon can)	\$17.15
Re-refined oil (5 gallon can)	\$15.25
Copier Paper (E.O. 13101 compliant)	
Virgin (truck load)	\$3.13
Recycled (truck load)	\$3.06
Toner Cartridge (Canon Machines-GSA Advantage)	
New replacement cartridge	\$67.74
Remanufactured cartridge	\$30.67
Binders (3" white slant D-ring w/ clear covers-GSA Advantage)	
Virgin binders	\$11.59
Recycled content binders	\$6.28

Information to create these comparisons came from the Defense Logistics Agency, the International Tire and Rubber Association, General Services Administration, and the Government Printing Office.



In the above examples, the initial costs of recycled items such as re-refined oil and retread tires can be further reduced by contracting with local firms to do “closed-loop” recycling services. These practices are discussed later in this section.

Whenever possible, cost should be calculated over the life of the item, not just for initial, up-front cost. When comparing alternative products, the initial cost of the acquisition, as well as lifetime maintenance costs, resale value, disposal costs, replacement costs, operational costs, etc., must be considered in the analysis. A product having a higher initial cost may have lower operational cost or a higher resale value and could prove to be a better value and more cost-effective compared to the alternatives. This difference may only become apparent after a (complete) life-cycle cost analysis has been performed. The National Park Service, for example, has found that use of some recycled content materials, like plastic lumber in decking or park benches, can reduce maintenance or replacement costs. This is because the plastic lumber material, which can be initially more expensive than competing materials, lasts years longer and can eliminate labor and supply costs for paint-

ing and other maintenance, including the use of costly - and possibly toxic - wood cleaning and preserving chemicals.

The best way to control costs is to use performance specifications, comparison shopping, bulk purchases, competitive bidding, and life-cycle costing.

**Substitution Policies** — As a result of procurement reform, purchasing has become more decentralized. Use of a “substitution policy” is one technique for increasing purchases of recycled content products without centralized purchasing. Agencies establish a policy requesting that the supplying agency (e.g., General Services Administration, Defense Logistics Agency, or Government Printing Office) automatically substitute a recycled content product meeting E.O. 13101 and EPA’s recommended content levels in place of any orders for non-recycled content or non-compliant products. In 1997, ten Federal agencies sent letters to the General Services Administration and the Government Printing Office requesting that they substitute compliant recycled content copier paper for orders of non-compliant copier paper. This substitution policy significantly

### **Closing the Circle Award Winner**

The National Park Service installed a wood-plastic composite lumber raised boardwalk on a portion of the trail on Theodore Roosevelt Island in Washington, DC. This portion of the trail flooded periodically, causing trail users to skirt the trail path and slowly create damage to the adjacent ecosystem. The cost of the decking boards is approximately 1.65 times that of conventional lumber but has an estimated “payback” period of seven years due to reduced (i.e., nearly zero) maintenance costs. Additionally, the raised boardwalk provides qualitative benefits: year-round access to this part of Theodore Roosevelt Island and handicapped access.



increased Federal agency compliance with the postconsumer content paper directives in E.O. 13101. Based on the success of the paper substitution policy, the Departments of Justice (DOJ) and Defense (DoD) requested a substitution policy for re-refined lubricating oil.

#### ***Use of Innovative Contracting Techniques*** —

Agencies can use incentives contracts to increase their contractors' use of recycled content and environmentally preferable products. In 1996, DoD decided to team with EPA in developing contract language encouraging the use of environmentally preferable products in parking lot repairs. In 1997, DoD awarded a five-year, multi-million dollar contract to maintain and repair the parking lots and access roads at the Pentagon and three other facilities. The contract includes traditional price and performance requirements as well as incentives to use products with multiple environmental attributes. For example, the contract includes a two percent price differential that provides incentive for the contractor to search for these products. Environmental attributes, such as recycled content or low volatile organic compound content, were identified for 20 products. The price differential allows the contractor to earn up to 10 percent more for identifying and using products with additional environmental attributes beyond those initially identified. During the first 15 months of the contract, the contractor had used products with positive environmental attributes to pave 227,934 square feet of parking lots and roadways. Environmental benefits have included the use of 3,328 tons of recycled asphalt and 1,031 tons of recycled concrete. The contractor also used concrete containing recovered materials, recovered glass for reflective surfaces, asphalt sealer containing recovered crumb rubber, and low-VOC paint and concrete curing compound. The average cost for the work completed is significantly lower than similar work on other DoD parking lot repair contracts that do not include environmental features.

***Creates Closed-Loop Opportunities*** — These

**N**ASA contracts with Lanier to lease and service copiers. The contract includes a requirement for Lanier to supply copier paper complying with the postconsumer content standards established in E.O.s 12873 and 13101. The copiers are supplied agency-wide to NASA facilities. The contract has been in place for three years and enables NASA to comply with the E.O. directives. No performance issues about the paper have been raised since NASA converted to this contract.

represent opportunities for agencies to save money and resources by establishing closed-loop recycling and collections systems (see "Closed-Loop" discussion later in this section).

***Promote Buying "Green" Through Services Contracts*** — Recycled content and environmentally preferable products can be purchased through services contracts, such as janitorial or landscaping maintenance contracts, as well as purchased directly. Over 50 percent of Federal government purchasing is for services. Therefore, agencies need to look for opportunities to incorporate purchasing of recycled content and environmentally preferable products in contracts.

***Enhances Compatibility with Recycling Collection Program*** — Purchasing officials should work closely with recycling program coordinators to be sure products purchased can be recycled in existing internal or external recycling programs and life-cycle costs are continuously reflected in decision-making.

Agencies can buy a variety of paper products which are recyclable in office paper collection programs and benefit the purchasing agency. For example, switching from yellow to white ledger and legal pads will increase the value of recovered office paper. Certain colors, such as goldenrod and the neon colors, are harder to recycle and will, therefore, reduce the value of recovered office paper. Agencies can replace dif-



## Greening the Mail

The U.S. Postal Service (USPS) is a Federal leader in greening its operations. For instance, Abraham Lincoln, the 16th President of the U.S., and the only President to serve as postmaster, was honored in 1999 with a 33-cent stamped envelope made entirely of recycled paper, 30 percent post consumer. The breathtaking beauty of tropical flowers became available in 1999 as the first self-adhesive booklet with stamps printed on both sides of the booklet with a totally benign adhesive. The stamps themselves are the first stamps in the U.S. produced on paper stock containing 20 percent post consumer waste. Unveiled shortly thereafter were two more stamps, the Aquarium Fish and Niagra Falls. These stamps are also produced from 20 percent post consumer paper and have completely benign adhesive, which means the adhesive is recyclable.



difficult to recycle plastic window envelopes with open or glassine window envelopes and eliminate or minimize mailing labels. Agencies also can use water soluble labels or other sticky products. Reports should be printed on recyclable paper and always double-sided (generally non-coated paper). These and other techniques can improve the value of recovered paper by eliminating contaminants. In fact, this may be necessary because some recycling programs allow only those materials having the highest resale value.

Recycled content and recyclability may conflict, depending on the products' makeup and the type of office collection program in place. Paper with high recycled content (as much as 100 percent postconsumer material) can be available at costs lower than virgin or other recycled papers. Some of this type of paper can have a high "groundwood" content because it contains fiber recovered from newspapers or magazines.<sup>1</sup> Groundwood office paper, however, generally is

not accepted in high-grade white office paper collection programs. In some instances, groundwood office paper can be recycled with newspapers or mixed paper, depending on the local program. Because some newsprint deinking mills cannot easily deink toner from laser printers and copiers, it is important to ask whether groundwood office papers can be mixed with newspapers.

## Cooperative Purchasing

**Value in Numbers** — Increasing the number of bidders and the number of agencies participating in the purchase of recycled content products can help reduce the unit prices for these products. Schools, colleges, libraries, and other public institutions are ideally suited to cooperative purchasing. Public agencies can combine their purchasing power to save money on a number of products. For example, a number of Federal agencies in some regions of the country, coincidentally located in GSA-controlled Federal

<sup>1</sup> Newsprint used for printing newspapers is a groundwood paper. Publications such as the Federal Register and some Internal Revenue Service (IRS) publications also are printed on groundwood paper. Groundwood paper is made from "ground wood pulp," derived from wood fiber via a mechanical pulping process (rather than a chemical pulping process). The groundwood pulping process uses fewer chemicals than chemical-based paper production (also known as the kraft process) and has a high fiber yield (very little waste).

buildings, have formed Cooperative Administrative Support Units (CASUs) designed to share a variety of costs, such as duplicating services. Some of the advantages of cooperative purchasing are:

**Lowers Unit Costs** — By combining purchases and buying in bulk, agencies may find unit prices for recycled products to be lower than if each agency purchased individually.

**Lowers Administrative Costs** — By combining purchases, only one Government agency (the lead agency) bears the administrative costs of preparing, advertising, and analyzing the bids and administering the contract.

**Increases Volume of Recycled Purchases** — Because more agencies are involved, more recycled products will be purchased.

**Encourages More Organizations to Participate in the Buy Recycled Effort** — Cooperative purchasing encourages participating agencies to buy other recycled products.

**Increases Availability of Recycled Products** — In some cases, manufacturers may require a minimum order before shipping recycled products. Cooperative purchasing can help meet minimum order requirements.

**Establishes Common Definitions, Percentages, and Standards** — When various Government agencies buy from the same contract, definitions, percentages, and standards are the same.

This allows manufacturers to produce stock items instead of specialty items.

## Closed-Loop Systems

Using a closed-loop system, government agencies (individually or in cooperation with other governmental and non-governmental entities) set up programs to collect recyclable materials and then either (a) buy back the recycled products made from those materials or (b) simply offset the costs of purchasing products by a credit for the value of the collected materials. What are the benefits to these options? The system guarantees markets for recyclable materials by stabilizing the demand for recycled products at a high level. Organizations instituting closed-loop systems reduce costs and create a direct link between purchasing recycled products and reducing the volume of waste.

In the Recovered Materials Advisory Notices (RMANs), EPA recommends that agencies establish closed-loop contracts for several of the CPG-designated items, including tires (retreading services), toner cartridges (remanufacturing services), and pallets (repair or rebuilding services).

Closed-loop contracts also can provide an opportunity to create a market for materials recovered by the agency that are otherwise difficult to market. The U.S. Postal Service is creating markets for undeliverable mail by using closed-loop contracts. The Postal Service estab-

## Closing the Circle Award Winner

The Defense Supply Center Richmond (DSCR) contracted for a closed-loop re-refined oil program. The new program offers re-refined oil with an added value: when the customer orders re-refined oil from DSCR, the DSCR contractor will pick-up the agency's used oil as part of the provided service. Having one closed-loop contract eliminates the need for used oil disposal contracts and the associated contract administration and additional costs for disposal of used oil. The recovered oil is re-refined, rather than burned or disposed of, and therefore, is available for use as lubricating oil over and over again. DSCR offers 10W30 and 15W40 oils meeting commercial specifications, and 15W40 oils meeting military specifications, through the closed-loop program.



lished specifications for and purchased 5,000 recycling containers for use in post office lobbies. Gridcore Systems International is manufacturing the containers using undeliverable mail and other paper recovered by the Postal Service.

Beyond the resource-based benefits described above, closed-loop recycling offers another type of long-term economic potential for Federal, state, and local governments. Governments and businesses at various levels, working in concert with each other, might be more likely to draw “green” industries (e.g., remanufacturer or other recycled products manufacturers) to their locale, creating jobs and helping the local economy.

**Sec. 402. Affirmative Procurement Programs.** (a) *The head of each executive agency shall develop and implement affirmative procurement programs in accordance with section 6002 of RCRA (42 U.S.C. 6962) and this order and consider use of the procurement tools and methods described in 7 U.S.C. 5909. Agencies shall ensure that responsibilities for preparation, implementation, and monitoring of affirmative procurement programs are shared between the program personnel and acquisition and procurement personnel. For the purposes of all purchases made pursuant to this order, EPA, in consultation with such other executive agencies as appropriate, shall endeavor to maximize environmental benefits, consistent with price, performance, and availability considerations, and constraints imposed by law, and shall adjust solicitation guidelines as necessary in order to accomplish this goal.*

(b) *Agencies shall establish affirmative procurement programs for all EPA-designated guideline items purchased by their agency. For newly designated items, agencies shall revise their internal programs within one year from the date the EPA designated the new items.*

(c) *Exclusive of the biobased products described in section 504, for the EPA-designated guideline items, which are contained in 40 CFR part 247, and for all future designated guideline items,*

*agencies shall ensure that their affirmative procurement programs require 100 percent of their purchases of products to meet or exceed the EPA guideline unless written justification is provided that a product is not available competitively within a reasonable time frame, does not meet appropriate performance standards, or is only available at an unreasonable price. Written justification is not required for purchases below the micropurchase threshold. For micropurchases, agencies shall provide guidance regarding purchase of EPA-designated guideline items. This guidance should encourage consideration of aggregating purchases when this method would promote economy and efficiency.*

(d) *Within 90 days after the date of this order, the head of each executive agency that has not implemented an affirmative procurement program shall ensure that the affirmative procurement program has been established and is being implemented to the maximum extent practicable.*

## Affirmative Procurement Programs

RCRA section 6002 (c) and (i) and Executive Order 13101 (sec. 402) require Federal agencies to develop Affirmative Procurement Programs (APPs) for EPA-designated products when purchases of these products exceed \$10,000 in the current fiscal year or exceeded \$10,000 in the previous fiscal year. (See Part 5 of this publication for a list of EPA-designated items.) The purpose of the APP is to help agencies plan their acquisitions in accordance with the Executive Order and RCRA, then track and report their success rate in achieving their procurement goals. In this way, the APP is linked to the acquisition planning phase. The development of an APP is key to expanding the use of products containing recovered materials. As described in the Executive Order and RCRA section 6002, an APP is an agency’s strategy for maximizing its purchases of products designated by EPA.

Within one year after EPA designates a product, procuring agencies must establish an APP for

that product. In addition, Federal agencies must revise their specifications to require the use of recovered materials to the maximum extent possible without jeopardizing the intended end use of the products. EPA recommends that each procuring agency develop one overall APP identifying which designated products the agency purchases. When EPA designates additional products, agencies can simply revise the APP as appropriate.

At a minimum, RCRA requires APPs to consist of the following four elements:

**Preference Program** — Agencies must institute practices and procedures favoring the specification and procurement of recycled content products. This means they must examine not only specifications, but policies, procedures, and solicitation language to assure that they allow the purchase of products containing the highest levels of recovered materials practicable.

Agencies must eliminate clauses that prohibit the use of recovered materials or that require the use of virgin materials. Agencies also must eliminate or revise clauses that create barriers to the use of recycled-content products. While such clauses are often found in specifications, they also can be found in policies, procedures, and solicitation language.

RCRA specifies three procurement methods: the use of minimum content standards (identifying the minimum recovered content an item should contain), a case-by-case procurement, or an equivalent approach. For most designated items, EPA has determined that the use of minimum content standards will maximize the use of recovered materials in the items. EPA provides recommendations for recovered materials content in Recovered Materials Advisory Notices (RMANs). Part 5 of this publication provides EPA's recommendations for each of the products designated to date.

If it is unable to acquire the product containing the content levels recommended by EPA, a procuring agency may specify a different (usu-

ally lower) content level for specific procurement actions. Procuring agencies also can determine that products containing higher recycled content are available and specify a higher level than recommended by EPA.

Sometimes, minimum content standards are inappropriate. For example, in the case of remanufactured products such as retread tires or toner cartridges, EPA recommends that agencies purchase a remanufactured product or contract for remanufacturing services.

**Promotion Program** — Agencies must actively promote their recycled content product acquisition programs. Promotion should be internal as well as external. Internal promotion can consist of activities such as wide distribution of copies of an agency's affirmative procurement policy, articles in agency newsletters, workshops to educate employees, and using logos/recycling statements on official stationery and publications. Most importantly, the message must reach field operations, procurement officials, supply and requirements personnel, and individual users who buy materials or products with a government credit card. Examples of external promotion are publishing articles in trade journals, participating in vendor shows and trade fairs, placing statements in solicitations, and discussing an agency's procurement program at bidders' conferences. Bidders' lists also should be expanded to include manufacturers of recycled content products or limited to manufacturers or vendors of recycled content products.

**Estimation, Certification, and Verification** — RCRA section 6002 requires procuring agencies to obtain estimates and certifications of the recycled content in the products to be supplied under a contract and to verify those estimates and certifications. The estimation requirement applies only to purchases above the simplified acquisition threshold, which currently is \$100,000. The estimates can be used as a means of determining whether products are available with higher percentages of recovered materials than specified in an agency's specifications.



Agencies can use this information to revise their content standards.

The Federal Acquisition Regulation (FAR) contains clauses for agencies to use in obtaining estimates and certifications. Clause 52.223-4, Recovered Material Certification, is used in solicitations that are for, or specify the use of, recovered materials. By signing it, the offeror certifies that the products offered meet the minimum content levels in applicable contract specifications. Clause 52.223-9, Certification and Estimate of Percentage of Recovered Material Content for EPA Designated Items, is used in contracts exceeding the simplified acquisition threshold that are for, or specify the use of, an EPA designated item. The contractor certifies that the percentage of recovered materials in the products is at least the amount required by the contract specifications. The contractor also estimates the percentage of recovered materials actually in the products.

Agencies should verify these estimates and certifications through their normal quality control assurance procedures.

**Annual Review and Monitoring** — Agencies must ensure they are using the highest possible percentage of recovered materials available and be aware of the prevailing technological capabilities. By periodically reviewing the content levels in recycled content products and any revisions to EPA's content level recommendations, agencies can determine whether to revise their content standards.

**Limitations on the Affirmative Procurement Requirements** — RCRA section 6002 allows procuring agencies to choose not to buy a recycled product if the price is unreasonable, if there is inadequate competition, if the products are unavailable within a reasonable period of time, or if they do not meet reasonable performance standards. EPA researches the price, performance, and availability of products before designating them and provides recommendations, such as appropriate government or commercial

specifications, to address the limitations.

Agencies should note that RCRA emphasizes that use of these limitations is tied to reasonableness. Agencies cannot require that a product be delivered in a shorter period of time than is really needed or require a higher performance level than is needed simply to claim that the affirmative procurement requirements do not apply.

Sec. 302(b)(5) of E.O. 13101 directs agency acquisition and procurement personnel to justify in writing to the contracting file and to their Agency Environmental Executive the rationale for not purchasing EPA-designated items containing recovered materials, above the micro-purchase threshold, and submit a plan and timetable for increasing agency purchases of the designated items. **In other words, the RCRA requirement to purchase EPA-designated recycled content products applies to micro-purchases, but the E.O. directive to justify not purchasing a recycled content product does not apply to micro-purchases.**

**Sec. 403. Federal Facility Compliance. (a)**

*Within 6 months of the date of this order, the Administrator of the EPA shall, in consultation with the Federal Environmental Executive, prepare guidance for use in determining Federal facility compliance with section 6002 of RCRA and the related requirements of this order.*

*(b) EPA inspections of Federal facilities conducted pursuant to RCRA and the Federal Facility Compliance Act and EPA "multi-media" inspections carried out at Federal facilities will include, where appropriate, evaluation of facility compliance with section 6002 of RCRA and any implementing guidance.*

*(c) Where inspections of Federal facilities are carried out by authorized States pursuant to RCRA and the Federal Facility Compliance Act, the Administrator of the EPA will encourage those States to include evaluation of facility compliance with section 6002 of RCRA in light of EPA guidance prepared pursuant to subsection (a), where appropriate, similar to inspec-*

**R**egion Four's EPA and GSA offices in Atlanta have been making great strides toward E.O. 13101 compliance with two very exciting projects.

- 1) Greening the Southeast conference for Federal agencies; and
- 2) EPA's internal environmental purchasing program.

GSA's national environmental initiative 'Planet GSA' was developed to encourage employees to **Buy Green, Build Green, Drive Green and Save Green**. Under this initiative, Atlanta's GSA, EPA and DOE offices have joined forces in reaching out to the southeastern Federal community by staging an annual event '**Greening the Southeast**' to celebrate and encourage these environmental principals. Highlights of the conference include an opening ceremony with remarks from several agencies, awards to acknowledge those who have done stellar work in the environmental purchasing arena, an exhibit hall, breakout sessions designed to educate participants on a host of environmental purchasing issues, and an 'Office Supplies Swap Shop' where used office supplies were dropped off by some and picked up by others.

**EPA's Affirmative Procurement Program** — EPA Region Four has designed an affirmative procurement program that is achieving great success and that can be modeled by other Federal agencies. While it is already purchasing items such as office paper, toner cartridges, and most other office supplies that are compliant with E.O. 13101, EPA Region Four is planning full compliance for its own purchasing by the end of FY 1999 and for contractors' purchasing by the end of FY 2000. For this project, EPA has called on its long-standing relationship with GSA to make things work. Most note-worthy in this regard was GSA's assistance with tracking recycled purchases — a must for any successful affirmative procurement program

Keys to the success of the affirmative procurement program have been:

1. **Involving the Right Players.**
2. **Planning.**
3. **Setting Reasonable Milestones and Time lines.**

## Affirmative Procurement Strategies

In May 1997, Naval Station San Diego assigned a contractor to develop strategies for interactive affirmative procurement promotions and education. As a result, affirmative procurement presentations were conducted to supply personnel, contracting officers, comptroller representatives, procurement personnel, and hazardous material managers. Naval Station San Diego was able to identify more than 60 affirmative procurement strategies, such as replacing timber pilings with recycled plastic pier piling along a 5.5 mile waterfront and establishing a recycling center administration and training center.



## Vehicle Maintenance Closed Loop Programs

The Vehicle Maintenance Shop at Seymour Johnson Air Force Base is responsible for servicing 617 vehicles plus the pre- and post-deployment processing of an additional 300 vehicles. Vehicle Maintenance personnel forged close partnerships with local businesses that have resulted in closed loop recycling programs for the installation's used oil, tires, and anti-freeze.

The Vehicle Maintenance Shop can generate 8,000 to 9,000 gallons of used oil in a week-end preparing fleet vehicles for deployment. In order to handle both the normal volume of used oil generated plus these periodic increased amounts, the Vehicle Maintenance Shop contracted with a local vendor to remove used oil and provide re-refined oil. This allows the shop to eliminate used oil disposal costs and purchase re-refined oil.

The Vehicle Maintenance Shop has partnered with a local company to retread the used tires generated on the installation. Approximately 80 percent of the installation's vehicle fleet is authorized to run on retread tires, including all of the trucks. The only exception is high-speed vehicles. The retreads cost about half as much as new tires, and each tire can be retreaded up to two times before disposal. The Vehicle Maintenance Shop estimates that the retreading program saves the installation \$30,000 annually in avoided costs of new tire purchases and tire disposal.

In December of 1997, the Vehicle Maintenance Shop installed an ionization antifreeze recycling system in order to recycle the antifreeze generated by the installation's fleet. During the four-month period from November 1998 to February 1999, the base generated 17 55-gallon drums of used antifreeze. By recycling on-site, rather than disposing of the spent antifreeze, the vehicle Maintenance Shop saved nearly \$13,000 in new product and disposal cost avoidance.

*tions performed by the EPA. The EPA may provide information and technical assistance to the States to enable them to include such considerations in their inspection.*

*(d) The EPA shall report annually to the Federal Environmental Executive on the results of inspections performed by the EPA to determine Federal facility compliance with section 6002 of RCRA not later than February 1st for those inspections conducted during the previous fiscal year.*

## Federal Facility Compliance

Sec. 403 of E.O. 13101 directed EPA to develop guidance for inspections of Federal facilities for compliance with the buy-recycled requirements of RCRA section 6002. The guidance is to be used by EPA whenever the Agency conducts RCRA inspections or multi-media inspections that include a RCRA component. The E.O. further directed EPA to encourage states authorized to conduct RCRA inspections to use the guidance and evaluate Federal facility compliance with RCRA section 6002.

EPA completed and distributed the guidance to its regional offices in May of 1999. Appendix K contains a copy of the guidance. EPA began inspecting Federal facilities for compliance with RCRA section 6002 in the last quarter of fiscal year 1999.

For the first year, inspections will focus primarily on information collection. Inspections will include distribution of a questionnaire to the facility and inspection of the facility vehicle maintenance facilities, when appropriate, for compliance with the requirements to use re-refined engine lubricating oil, retread tires, and recycled engine coolant.

The questionnaire contains a matrix addressing facility familiarity with the buy-recycled requirements and the facility's purchase and use of the EPA-designated recycled content products. The questionnaire requests that the facility environmental manager, in coordination with the facility procurement manager, provide a



response to each written question and complete the matrix. Once completed, the entire package is to be mailed to EPA Headquarters by the facility within two weeks of the inspection. EPA's compliance assistance programs then will use this information to promote Federal facility awareness of, and compliance with, the buy-recycled requirements.

To ensure Federal facility compliance with RCRA section 6002 in the future, EPA's response to non-compliance with that section may change. EPA may begin to issue Notices of Violation or enter into compliance agreements with facilities for violations of RCRA section 6002 that are discovered during the inspections.

## Examples

Following are examples of Closing the Circle Award winners that went beyond the ordinary to increase recycling at Federal facilities or institute positive programs to increase their procurement of green goods and services.

### Environmental Innovation

#### Deconstruction at Riverdale: Construction Materials Reuse

The Riverdale, MD Deconstruction Project was undertaken in 1997 by the U.S. EPA and the U.S. Department of Housing and Urban Development, Maryland State Office to explore an economically and environmentally preferable alternative to demolition. The Riverdale project consisted of deconstructing a 2,000 square foot, 4 unit, residential building in an urban area of Baltimore County, Maryland. U.S. EPA provided the funding and project management for the deconstruction work and analysis of results, U.S. HUD contributed the deconstruction site and participated in project planning and management. The results of the project indicated that the deconstruction method preserved over 70% of the building materials for reuse or recycling by disassembling the building piece by piece. The economic analysis indicated that deconstruction cost roughly \$1.00 more per square foot (with an overlap of 50 cents) than demolition, but was less harmful to the environment. In particular, the deconstruction method reduces soil erosion and water supply impacts, conserves landfill space, saves energy by reducing the need for new material production, and reduces airborne contaminants.



## Environmental Innovation

### First Green Post Office

By taking a proactive approach in construction of healthy “green” buildings, the United States Postal Service is helping to protect the environment, providing a healthy indoor environment for its customers and employees, and setting a standard for others to follow. The construction of a 26,000 square foot facility in Fort Worth, TX was completed in 300 days. The initial goal of keeping the first cost within 10 percent of the average construction cost has been met with cost savings expected from rain water harvesting, energy efficient systems, and a compressed natural gas refueling station. The future goal is to evaluate the green options for cost availability, performance, and aesthetics during the first year of occupancy and apply the lessons learned to all future construction projects.



## Affirmative Procurement

### Opening New Doors to Biobased Products

Mr. Richard Holcombe, USDA headquarters, Washington, DC, through his personal efforts and fortitude, led a successful effort to gain recognition and acceptance of a new type of Environmentally Preferable Products, that is, Biobased Products, in the new E.O. 13101. Many people in the federal environmental community had no clear idea of what commercial biobased products are or how they fit in with recycled and other EPP products. The acceptance of a new idea was the major barrier Mr. Holcombe had to overcome during the process of the E.O. rewrite to get these important products recognized and included. Because he was successful in leading this effort, E.O. 13101 now includes biobased products in several sections. The impacts on influencing public policy are far-reaching. Inclusion of biobased products benefits not only the interests of the environmental community, but also benefits the United States farm, forest, and marine economy and the consumer.



## Affirmative Procurement

### Defense Automated Printing Service (DAPS) Revamps Procurement for 20% Recycled Paper

Based on a DAPS survey conducted from October 1997 through May 1998 of all paper purchased for its cost-per-copy and in-house operations, 63% of 1.25 billion sheets purchased was virgin fiber. With these results, DAPS directed all operations to use 20% or greater postconsumer recycled paper by October 1998. Orders for virgin paper ceased effective June 1998. Waivers to use virgin fiber had to meet the guidelines outlined in Executive Order (E.O.) 12873 and be approved by DAPS. DAPS, part of the Defense Logistics Agency, Fort Belvoir, VA, negotiated with GSA to establish a DAPS-wide recycled paper supply contract to increase availability and reduce cost. A follow up study was conducted from October through November 1998 to assess the corrective measures to bring DAPS into compliance with E.O. 12873. The study's results showed dramatic improvement in Affirmative Procurement: recycled paper purchased as a % of total monthly paper purchased increased from 37% to 97%.



## Sowing the Seeds for Change

### Joint Service Pollution Prevention Technical Library

The Joint Service Pollution Prevention (P2) Library is the comprehensive DOD environmental resource containing information on equipment, technologies, and management practices that assists installations in reducing or eliminating waste generation, disposal, and release. The Library is a cooperative effort by the Navy, Army, Air Force, Marine Corps, Coast Guard, and Defense Logistics Agency and is available on the World Wide Web, on CD-ROM, and in a printed version. In 1998, the Library had over 300,000 visits from both military and private organizations worldwide. Based on user's feedback, the "average" user found eight P2 alternatives and saved 64 hours of research time. A Naval Weapon Station reported the Library saved them over \$60,000, a Marine Corps Air Station also reported savings of \$60,000, and an Army Depot reported savings of over \$15,000. The Library is sowing the seeds for change, as it provides answers for virtually any installation's P2 challenges. Come visit the Library at <http://enviro.nfesc.navy.mil/p2library/>. The award was presented to the Naval Facilities Engineering Service Center, Port Hueneme, CA.



## Sowing the Seeds for Change

### Recycling Used Fluorescent Lamps at Ohio Postal Facilities

Ohio Postal facilities won a Closing the Circle Group Award in the category of "Sowing the Seeds for Change" for "Recycling Used Fluorescent Lamps at Ohio Postal Facilities." More than 1,000 USPS facilities in Ohio have implemented a Standard Operating Procedure to recycle all fluorescent lamps instead of putting them in landfills. In early 1995, Columbus Postal District, in Ohio, was faced with the problem of properly disposing of used or unwanted fluorescent and high intensity discharge (HID) lamps. Knowing that fluorescent and HID lamps contain hazardous metal halides and mercury, the Postal Service facilities believed that landfilling these lamps was not the best environmental practice. The District developed a plan to collect, store, and ship all spent fluorescent and HID lamps for recycling. The new process was then shared to cover the entire 1,028 Postal facilities in Ohio. Since the inception of the plan in 1995, it is estimated that more than 46,000 spent lamps have been recycled.





## Part 5

# Standards, Specifications, and Designations of Items

*Sec. 501. Specifications, Product Descriptions, and Standards. When developing, reviewing, or revising Federal and military specifications, product descriptions (including commercial item descriptions), and standards, executive agencies shall consider recovered materials and any environmentally preferable purchasing criteria developed by the EPA, and ensure the criteria are complied with in developing or revising standards. Agencies shall report annually to the FEE on their compliance with this section for incorporation into the biennial report to the President referred to in section 302(a)(2) of this order. (a) If an inconsistency with section 6002 of RCRA or this order is identified in a specification, standard, or product description, the FEE shall request that the Environmental Executive of the pertinent agency advise the FEE as to why the specification cannot be revised or submit a plan for revising it within 60 days.*

*(b) If an agency is able to revise an inconsistent specification but cannot do so within 60 days, it is the responsibility of that AEE to monitor and implement the plan for revising it.*

**The White House Task Force on Recycling** convened a Contracts and Specifications Workgroup to identify examples of solicitation, contract, and specification language used successfully to purchase recycled content and environmentally preferable products. The workgroup is examining construction, janitorial services, operations and maintenance, leases, fleet management, and cafeteria contracts.

## Specifications, Product Descriptions, and Standards

When implementing an agency's Affirmative Procurement Program, RCRA and Executive Order 13101 require contracts and specifications appearing in them be modified to focus on the use of recovered materials as much as possible. Through specification revision, agencies proactively direct their efforts toward meeting procurement goals and objectives for EPA-designated items. This means that agencies must examine not only specifications, but policies, procedures, and solicitation language to ensure that they purchase products containing the highest levels of recovered materials practicable.

Agencies must eliminate clauses that prohibit the use of recovered materials or that require the use of virgin materials. Agencies also must eliminate or revise clauses that create barriers to the use of recycled-content products. While such clauses are usually found in specifications, they can also be found in policies, procedures, and solicitation language.

Agencies should:

- Start with existing standards, definitions, and percentages whenever possible, particularly those recommended by EPA or established by E.O. 13101 (i.e., postconsumer content standards for uncoated printing and writing paper).
- For EPA-designated recycled content products, use EPA's recommended minimum content levels. These levels are set high enough to increase the use of recycled products but not so high they exceed the capabilities of existing technology or limit competition. By

establishing minimum content standards in accordance with EPA's recommendations, agencies will satisfy the RCRA requirement to buy products containing the highest percentage of recovered materials practicable.

- For environmentally preferable products, use the EPP guiding principles developed by EPA.
- For biobased products, use the USDA criteria and informational listing of products.
- Talk to the user, as well as vendors, to develop aggressive but realistic standards for recycled content and learn about specification or solicitation provisions that could be a barrier to purchasing recycled content or environmentally preferable products.
- Emphasize performance specifications over aesthetic specifications. The important factor is how a recycled content or environmentally preferable product will perform for a particular end use.
- Focus on postconsumer content, amount of waste prevented, or performance-based measures as significant factors in making contract award decisions.
- Amend bid solicitation documents and specifications to remove obstacles to using recovered material in the product or to purchasing recycled content or environmentally preferable products. For example, an "all or none" clause might preclude purchase of recycled content products if some of the products solicited in the bid are not available with recycled content.
- Review and revise specifications as required by Sec. 501 of E.O. 13101 and RCRA section 6002.

## For More Information

Copies of **Federal specifications** are available from:

GSA/FSS (3FPE-W)  
 Specifications Section, Suite 8100  
 470 L'Enfant Plaza, S.W.  
 Washington, DC 20407  
 phone: 202-619-8925  
 fax: 202-619-8978

Copies of **military specifications** are available from:

Defense Automated Printing Service  
 Standardization Document Order Desk  
 Building 4D, 700 Robbins Avenue  
 Philadelphia, PA 19111-5094  
 phone: 215-697-2179  
 fax: 215-697-1462

Copies of the Government Printing Office's *Government Paper Specification Standards* are available for \$11 from the Superintendent of Documents, 202-512-1800. Reference stock number 021-000-00174-1.

## Determining Procurement Standards

Government procurement often involves products or services that must meet specific, reliable standards. Such standards are frequently available from private, voluntary standards bodies. Whenever feasible and consistent with law, Federal agencies are to rely on voluntary standards and work with voluntary standards organizations, according to policy defined in OMB Circular A-119 and sec. 12(d) of the National Technology Transfer and Advancement Act of 1995 (P.L. 104-113).

The American National Standards Institute (ANSI) and its member groups publish standards on a wide variety of products. The American Society for Testing and Materials (ASTM), which is one of ANSI's member groups, has standards for both testing methods and design. ASTM has developed performance specification standards for various products,



including paint, road and paving materials, paper, roofing, wood, packaging, rubber, soap, equipment, business imaging products, tires, and food. ASTM recently developed standards for composite/plastic lumber. Several ASTM definitions and specifications are specifically for products containing recovered materials. ASTM also has some specifications for use of recovered materials in specified products, such as fly ash in cement and concrete and glass cullet in fiber-glass insulation. EPA references ASTM standards as appropriate in its recycled content product purchasing guidelines.

Other specifications related to purchasing EPA-designated recycled content products have been developed by the American Concrete Institute and the American Association of State Highway and Transportation Officials.

The American Institute of Architects' Environmental Resource Guide, proposes standards for energy efficiency, reduction of indoor air pollution and recycled content in building materials, and recommends design systems that allow for future recyclability. To obtain a copy, contact AIA's bookstore at 202-626-7475.

The International Organization for Standardization (ISO) 14000 Environmental Management Standards are another tool which may also contribute to greening the government. Several Executive agencies are already exploring the use of the ISO 14001 standard for Environmental Management Systems (EMS) in Federal facilities. Use of this standard is consistent with the implementation of the Code of Environmental Management Principles (CEMP) developed for use by Federal facilities in conjunction with Executive Order 12856. Both would allow facilities to establish management systems which include environmental policies and objectives, the identification of current environmental requirements and significant aspects, documentation, opportunities for improvement, etc. The testing of the 14001 standard and of the CEMP by Federal facilities may offer valid demonstrations and measurable environmental

performance resulting from an EMS. Other applicable standards under development in the 14000 series include: environmental labeling, environmental performance evaluation and life cycle assessment. EPA and DOE co-chair an Inter-Agency Working Group on ISO 14000 under the umbrella of the Inter-Agency Committee on Standards Policy to coordinate issues and questions among the agencies on ISO 14000. For more information contact: Mary McKiel, Director of the EPA Voluntary Standards Network, 202-260-3584.

***Sec. 502. Designation of Items that Contain Recovered Materials.*** *In order to expedite the process of designating items that are or can be made with recovered materials, the EPA shall use the following process for designating these items in accordance with section 6002(e) of RCRA. (a) The EPA shall designate items that are or can be made with recovered material, by promulgating amendments to the Comprehensive Procurement Guideline (CPG). The CPG shall be updated every two years or as appropriate after an opportunity for public comment.*

*(b) Concurrent with the issuance of the CPG, the EPA shall publish for comment in the Federal Register Recovered Materials Advisory Notices that present the range of recovered materials content levels within which the designated items are currently available. These levels shall be updated periodically, after opportunity for public comment, to reflect changes in market conditions.*

*(c) Once items containing recovered materials have been designated by the EPA in the CPG, agencies shall modify their affirmative procurement programs to require that, to the maximum extent practicable, their purchases of products meet or exceed the EPA guidelines unless written justification is provided that a product is not available competitively, not available within a reasonable time frame, does not meet appropriate performance standards, or is only available at an unreasonable price.*

## Designation of Items Containing Recovered Materials

In E.O. 13101, President Clinton directed EPA to continue to use a streamlined process for designating additional items containing recovered material, in order to increase the number of products and update the recommended recycled content levels more easily. EPA designates products in the Comprehensive Procurement Guideline (CPG) and provides recommendations for purchasing the designated products containing recovered materials in Recovered Materials Advisory Notices (RMANs). As of late summer, 1999, EPA designated 54 products or categories of products. The product designations and related content recommendations are provided below and can also be viewed on EPA's CPG web site at [www.epa.gov/cpg](http://www.epa.gov/cpg).

RCRA section 6002(c) and (i) specify that agencies must begin purchasing the designated products containing recovered materials within one year after EPA designates them. Agencies thus have one year to review and revise their affirmative procurement programs, specifications, and solicitations and to develop any policies needed to ensure that their purchasers are

aware of the buy-recycled requirements.

EPA's RMANs recommend content levels for the 54 products plus 35 types of paper and paper products. When appropriate, content levels are specified as percentages of total recovered materials, percentages of postconsumer materials, or a combination. In some cases (e.g., remanufactured toner cartridges), setting a content level is inappropriate, and EPA recommends other procurement methods, such as contracting for remanufacturing services. EPA plans to continue to issue updates periodically to ensure the content levels reflect changes in the marketplace. Through use of these guidelines, the Federal Government hopes to expand its use of products with recovered materials and to help develop markets for them in other sectors of the economy.

The CPG web site also contains the technical background documents supporting the product designations, fact sheets for each category of products, and lists of vendors of the designated products. For paper copies of these publications, contact the RCRA Hotline at (800) 424-9346, or in the Washington, DC, metropolitan area, (703) 412-9810.

## EPA's Designated Recycled Content Products

(Note: Some products have been combined, so list doesn't total 54 products)

Paper and paper products

Re-refined lubricating oils (engine oils, hydraulic fluids, gear oils)

Retread tires

Engine coolants

Cement and concrete containing coal fly ash and/or ground granulated blast furnace (GGBF) slag

Structural fiberboard

Laminated paperboard

Polyester carpet (face fiber)

Floor tiles (heavy duty/commercial use)

Patio blocks

Building insulation products

Shower and restroom dividers

Latex paint

Carpet cushion

Flowable fill

Railroad grade crossing surfaces

Traffic cones

Traffic barricades

Channelizers

Delineators

Flexible delineators

Playground surfaces

Running tracks

Plastic fencing

Park benches and picnic tables

Playground equipment

*continued on next page*

Hydraulic mulch  
 Compost made from yard trimmings and/or food waste  
 Garden hoses  
 Soaker hoses  
 Lawn and garden edging  
 Plastic lumber landscaping timbers and posts  
 Office recycling containers and office waste receptacles  
 Plastic desktop accessories  
 Toner cartridges  
 Binders  
 Plastic trash bags

Printer ribbons  
 Plastic envelopes  
 Plastic clipboards  
 Plastic file folders  
 Plastic clip portfolios  
 Plastic presentation folders  
 Pallets  
 Absorbents and adsorbents  
 Industrial drums  
 Awards and plaques  
 Mats  
 Signs, sign supports, and posts  
 Manual-grade strapping

## EPA's Recycled Content Recommendations<sup>1</sup>

### Designated Product

### Recovered Material Content Recommendations (%)

## PAPER AND PAPER PRODUCTS

### Uncoated Printing/Writing Papers

Reprographic paper	30 percent postconsumer fiber <sup>2</sup>
Offset paper	30 percent postconsumer fiber
Tablet paper	30 percent postconsumer fiber
Forms bond	30 percent postconsumer fiber
White wove envelopes	30 percent postconsumer fiber
White/colored kraft envelopes	10-20 percent postconsumer fiber
Unbleached kraft envelopes	10 percent postconsumer fiber
Cotton fiber paper	30 percent postconsumer fiber
Text & cover paper	30 percent postconsumer fiber
Supercalendered paper	10 percent postconsumer fiber
Machine finished groundwood	10 percent postconsumer fiber
Papeteries (invitation paper)	30 percent postconsumer fiber
Check safety paper	10 percent postconsumer fiber

### Coated Printing/Writing Papers

Coated printing paper	10 percent postconsumer fiber
Carbonless paper	30 percent postconsumer fiber

<sup>1</sup> See page 66. <sup>2</sup> See page 66.

Designated Product	Recovered Material Content Recommendations (%)
<b>Bristols</b>	
File folders	30 percent postconsumer fiber
Dyed filing products (e.g., hanging folders, accordion file folders)	20-50 percent recovered fiber, including 20 percent postconsumer fiber
Cards (index, postal, and other)	50 percent recovered fiber, including 20 percent postconsumer fiber
Pressboard report covers and binders	50 percent recovered fiber, including 20 percent postconsumer fiber
Tags and tickets	20-50 percent recovered fiber, including 20 percent postconsumer fiber
<b>Newsprint</b>	20-100 percent recovered fiber, including 20-85 percent postconsumer fiber
<b>Tissue and Towel Products</b>	
Bathroom tissue	20-100 percent recovered fiber, including 20-60 percent postconsumer fiber
Paper towels	40-100 percent recovered fiber, including 40-60 percent postconsumer fiber
Paper napkins	30-100 percent recovered fiber, including 30-60 percent postconsumer fiber
Facial tissue	10-100 percent recovered fiber, including 10-15 percent postconsumer fiber
General purpose industrial wipers	40-100 percent recovered fiber, including 40 percent postconsumer fiber
<b>Paperboard and Packaging</b>	
Corrugated containers	
<300 psi	25-50 percent recovered fiber, including 25-50 percent postconsumer fiber
300 psi	25-30 percent recovered fiber, including 25-30 percent postconsumer fiber
Solid fiber boxes	40 percent postconsumer fiber

### Designated Product

Folding cartons

### Recovered Material Content Recommendations (%)

100 percent recovered fiber, including  
40-80 percent postconsumer fiber

Industrial paperboard  
(e.g., tubes, cores, drums, and cans)

100 percent recovered fiber, including  
45-100 percent postconsumer fiber

Miscellaneous (e.g., pad backs, covered  
binders, book covers, mailing tubes, protective  
packaging)

90-100 percent recovered fiber, including  
75-100 percent postconsumer fiber

Padded mailers

5-15 percent postconsumer fiber

Carrierboard

10-100 percent recovered fiber, including  
10-15 percent postconsumer fiber

Brown papers (e.g., wrapping paper and bags)

5-40 percent recovered fiber, including  
5-20 percent postconsumer fiber

### Miscellaneous Paper Products

Tray liners

100 percent recovered fiber, including 50-75 per-  
cent postconsumer fiber

### VEHICULAR PRODUCTS

**Re-refined lubricating oils  
(engine oils, hydraulic fluids, gear oils)**

25 percent re-refined oil in the basestock

**Retread tires**

Purchase retread tires and/or tire retreading  
services

**Engine coolants**

Reclaim spent engine coolant on-site or  
establish a service contract for reclamation  
of spent coolant

### CONSTRUCTION PRODUCTS

**Cement and concrete containing coal fly ash**

20-40 percent coal fly ash, in accordance with  
ASTM and AASHTO specifications, depending  
on usage

**Cement and concrete containing ground gran-  
ulated blast furnace (GGBF) slag**

25-50 percent GGBF slag, in accordance with  
ASTM and AASHTO specifications, depending  
on usage

**Structural fiberboard**

80-100 percent recovered materials

**Laminated paperboard**

100 percent postconsumer paper



Designated Product	Recovered Material Content Recommendations (%)
<b>Polyester carpet (face fiber)</b>	25-100 percent postconsumer materials
<b>Floor tiles (heavy duty/commercial use)</b>	90-100 percent postconsumer rubber or 90-100 percent recovered plastic
<b>Patio blocks</b>	90-100 percent postconsumer rubber or 90-100 percent recovered plastic
<b>Building Insulation Products</b>	
Cellulose	75 percent postconsumer paper
Fiberglass	20-25 percent recovered glass
Rock wool	75 percent recovered slag
Perlite composite board	23 percent postconsumer paper
Plastic rigid foam (polyisocyanurate/polyurethane)	9 percent recovered materials
Plastic foam-in-place (Polyisocyanurate/polyurethane)	5 percent recovered materials
Plastic rigid foam (Glass-fiber reinforced)	6 percent recovered materials
Plastic rigid foam (Phenolic)	5 percent recovered materials
Non-woven plastic batt	100 percent recovered and/or postconsumer materials
<b>Shower and restroom dividers</b>	
Steel	Either 25 percent recovered materials, including 16 percent postconsumer materials or 100 percent recovered materials, including 67 percent postconsumer materials
Plastic	20-100 percent recovered materials, including 20-100 percent postconsumer plastic
<b>Latex paint</b>	
Reprocessed white, off-white, and pastel colors	20 percent postconsumer latex paint

Designated Product	Recovered Material Content Recommendations (%)
Reprocessed grey, brown, earthtones, and other dark colors	50-99 percent postconsumer latex paint
Consolidated latex paint	100 percent postconsumer latex paint
<b>Carpet cushion</b>	
Bonded polyurethane	15-50 percent recovered materials, including 15-50 percent postconsumer materials
Jute	40 percent postconsumer materials
Synthetic fibers	100 percent recovered materials
Rubber	60-90 percent recovered materials, including 60-90 percent postconsumer materials
Flowable fill containing coal fly ash and/or ferrous foundry sands	Refer to Tables C-9a, C-9b, and C-9c in EPA's RMAN III and American Concrete Institute report ACI 229R-94
<b>Railroad grade crossing surfaces</b>	
Coal fly ash	15-20 percent recovered materials
Rubber	85-95 percent recovered materials
Steel	Either 25 percent recovered materials, including 16 percent postconsumer materials or 100 percent recovered materials, including 67 percent postconsumer materials
<b>TRANSPORTATION PRODUCTS</b>	
<b>Traffic cones</b>	50-100 percent recovered rubber or plastic
<b>Traffic barricades</b>	
Plastic	100 percent recovered plastic, including 80-100 percent postconsumer materials
Steel	Either 25 percent recovered materials, including 16 percent postconsumer materials or 100 percent recovered materials, including 67 percent postconsumer materials
Fiberglass	100 percent recovered fiberglass

Designated Product	Recovered Material Content Recommendations (%)
<b>Channelizers</b>	25-95 percent postconsumer plastic or 100 percent rubber (base only)
<b>Delineators</b>	25-90 percent postconsumer plastic or 100 percent rubber (base only) or, for the steel base only, either 25 percent recovered materials, including 16 percent postconsumer materials or 100 percent recovered materials, including 67 percent postconsumer materials
<b>Flexible delineators</b>	25-85 percent postconsumer plastic
<b>PARK AND RECREATION PRODUCTS</b>	
<b>Playground surfaces</b>	90-100 percent postconsumer rubber or plastic
<b>Running tracks</b>	90-100 percent postconsumer rubber or plastic
<b>Plastic fencing</b>	90-100 percent recovered materials, including 60-100 percent postconsumer plastic
<b>Park benches and picnic tables</b>	
Plastic	100 percent recovered materials, including 90-100 percent postconsumer materials
Plastic composites	100 percent recovered materials, including 50-100 percent postconsumer materials
Aluminum	25 percent postconsumer materials
Concrete	15-40 percent recovered materials
Steel	Either 25 percent recovered materials, including 16 percent postconsumer materials or 100 percent recovered materials, including 67 percent postconsumer materials
<b>Playground equipment</b>	
Plastic	100 percent recovered materials, including 90-100 percent postconsumer materials
Plastic composites	95-100 percent recovered materials, including 50-75 percent postconsumer materials

**Designated Product**

**Recovered Material Content Recommendations (%)**

Steel

Either 25 percent recovered materials, including 16 percent postconsumer materials or 100 percent recovered materials, including 67 percent postconsumer materials

Aluminum

25 percent postconsumer materials

**LANDSCAPING PRODUCTS**

**Hydraulic mulch**

100 percent postconsumer paper or blend of 100 percent recovered wood and/or paper

**Compost made from yard trimmings and/or food waste**

(1) Purchase compost made from yard trimmings and/or food waste or (2) establish a composting system

**Garden hoses**

60-65 percent postconsumer rubber and/or plastic

**Soaker hoses**

60-70 percent postconsumer rubber and/or plastic

**Lawn and garden edging**

30-100 percent recovered materials, including 30-100 percent postconsumer plastic and/or rubber

**Plastic lumber landscaping timbers and posts**

HDPE

75-100 percent recovered materials, including 25-100 percent postconsumer materials

Mixed plastics/sawdust

100 percent recovered materials, including 50 percent postconsumer materials

HDPE/fiberglass

95 percent recovered materials, including 75 percent postconsumer materials

Other mixed resins

95-100 percent recovered materials, including 50-100 percent postconsumer materials

**NON-PAPER OFFICE PRODUCTS**

**Office recycling containers and office waste receptacles**

Plastic

20-100 percent postconsumer plastic

Designated Product	Recovered Material Content Recommendations (%)
Steel	25 percent recovered materials, including 16 percent postconsumer materials
Paper	Use the content levels recommended for paper products (e.g., corrugated or paperboard)
<b>Plastic desktop accessories</b>	25-80 percent postconsumer polystyrene
<b>Toner cartridges</b>	Purchase remanufactured toner cartridges OR establish cartridge remanufacturing services contract OR purchase new cartridges containing recovered materials
<b>Binders</b>	
Plastic-covered binders	25-50 percent recovered plastic in the plastic cover
Chipboard, paperboard, or pressboard binders or binder components	Use the content levels recommended for paper products (i.e., miscellaneous paperboard products, paperboard, pressboard)
<b>Solid plastic binders</b>	
HDPE	90 percent postconsumer materials
PE	30-50 percent recovered materials, including 30-50 percent postconsumer materials
PET	100 percent postconsumer materials
Misc. plastics	80 percent postconsumer materials
<b>Plastic trash bags</b>	10-100 percent postconsumer plastic
<b>Printer ribbons</b>	Purchase printer ribbon reinking or reloading services OR purchase reinked or reloaded printer ribbons
<b>Plastic envelopes</b>	25-35 percent recovered plastic, including 25 percent postconsumer plastic
<b>Plastic clipboards</b>	
HDPE	90 percent postconsumer materials
PS	50 percent postconsumer materials



Designated Product	Recovered Material Content Recommendations (%)
Misc. plastics	15-80 percent recovered materials, including 15 percent postconsumer materials
<b>Plastic file folders (HDPE)</b>	90 percent postconsumer materials
<b>Plastic clip portfolios (HDPE)</b>	90 percent postconsumer materials
<b>Plastic presentation folders (HDPE)</b>	90 percent postconsumer materials
<b>MISCELLANEOUS PRODUCTS</b>	
<b>Pallets</b>	
Wooden	95-100 percent postconsumer wood
Plastic lumber	100 percent postconsumer plastic
Thermoformed plastic	25-50 percent postconsumer plastic
Paperboard	50 percent postconsumer paper
<b>Sorbents</b>	
Paper	100 percent recovered materials, including 90-100 percent postconsumer materials
Textiles	95-100 percent recovered materials, including 95-100 percent postconsumer materials
Plastics	25-100 percent recovered materials
Wood	100 percent recovered materials
Other organic/multi-materials	100 percent recovered materials
<b>Industrial drums</b>	
Steel	25 percent recovered materials, including 16 percent postconsumer materials
Plastic (HDPE)	30-100 percent recovered materials, including 30-100 percent postconsumer materials
Fiber	100 percent postconsumer materials
<b>Awards and plaques</b>	
Glass	100 percent recovered materials, including 75-100 percent postconsumer materials

Designated Product	Recovered Material Content Recommendations (%)
Wood	100 percent recovered materials
Paper	40-100 percent recovered materials, including 40-100 percent postconsumer materials
Plastic and plastic/wood composites	95-100 percent recovered materials, including 50-100 percent postconsumer materials
<b>Mats</b>	
Rubber	85-100 percent recovered materials, including 75-100 postconsumer materials
Plastic	100 percent recovered materials, including 10-100 percent postconsumer materials
Rubber/plastic composite	100 percent postconsumer materials
<b>Signs</b>	
Plastic	80-100 percent recovered materials, including 80-100 percent postconsumer materials
Aluminum	25 percent postconsumer materials
<b>Sign supports and posts</b>	
Plastic	80-100 percent recovered materials, including 80-100 percent postconsumer materials
Steel	Either 25 percent recovered materials, including 16 percent postconsumer materials or 100 percent recovered materials, including 67 percent postconsumer materials
<b>Manual-grade strapping</b>	
Polyester	50-85 percent recovered materials, including 50-85 percent postconsumer materials
Polypropylene	10-40 percent recovered materials
Steel	Either 25 percent recovered materials, including 16 percent postconsumer materials or 100 percent recovered materials, including 67 percent postconsumer materials

## Who Must Buy EPA-Designated Products?

Under RCRA, the buy-recycled requirements apply to Federal, state, and local agencies and their contractors.

- Federal agencies are considered as a whole and are always procuring agencies. For example, the entire Department of Defense is a procuring agency for RCRA applicability purposes. Separate services, branches, or facilities do not constitute separate procuring agencies.
- A State or local agency is a procuring agency when it uses Federal funds for a procurement of an EPA-designated item. The Federal funds can include grants, loans, cooperative agreements, or other accounts or projects which are derived from Federal funds.
- Contractors are designated as procuring agencies when they are contracting with Federal, state, or local agencies using Federal funds for a procurement. State and local governments and their contractors, when funded by Federal dollars, are subject to procurement preference for products containing recycled materials (OMB Circular A-102, revised October 7, 1994). The Federal Acquisition Regulation (FAR) also requires contractors to submit paper documents relating to acquisition to be printed/copied double sided on recycled paper. (For more information, see Appendix F.)
- Only Government agencies and their contractors are, or can become procuring agencies. Private party recipients of Federal loans, grants, or funds under cooperative agreements are not procuring agencies.

**Sec. 503. Guidance on Acquisition of Environmentally Preferable Products and Services.** (a) *The EPA shall develop guidance within 90 days from the date of this order to address environmentally preferable purchasing. The guidance may be based on the EPA's*

*September 1995 Proposed Guidance on the Acquisition of Environmentally Preferable Products and Services and comments received thereon. The guidance should be designed for Government-wide use and targeted towards products and services that have the most effect. The guidance may also address the issues of use of the technical expertise of non-governmental entities and tools such as life cycle assessment in decisions on environmentally preferable purchasing. The EPA shall update this guidance every 2 years, or as appropriate.*

*(b) Agencies are encouraged to immediately test and evaluate the principles and concepts contained in the EPA's Guidance on the Acquisition of Environmentally Preferable Products and Services through pilot projects to provide practical information to the EPA for further updating of the guidance. Specifically:*

*(1) These pilot projects shall be focused around those product and service categories, including printing, that have wide use within the Federal Government. Priorities regarding which product and service categories to pilot shall be developed by the individual agencies and the EPA, in consultation with the OFPP, the FEE, and the appropriate agency procurement executives. Any policy disagreements shall be resolved by the Steering Committee.*

*(2) Agencies are encouraged to use all of the options available to them to determine the environmentally preferable attributes of products and services in their pilot and demonstration projects, including the use of technical expertise of non-governmental entities such as labeling, certification, or standards-developing organizations, as well as using the expertise of the National Institute of Standards and Technology.*

*(3) Upon request and to the extent practicable, the EPA shall assist executive agencies in designing, implementing, and documenting the results of these pilot and demonstration projects.*

*(4) The EPA, in coordination with other executive agencies, shall develop a database of information about these projects, including, but not limited to, the number and status of pilot projects, examples of agencies' policy directives, revisions to specifications, solicitation procedures, and grant/contract policies that facilitate adoption of environmentally preferable purchasing practices, to be integrated on a commonly available electronic medium (e.g., Internet Web site). These data are to be reported to the FEE.*

*(c) Executive agencies shall use the principles and concepts in the EPA Guidance on Acquisition of Environmentally Preferable Products and Services, in addition to the lessons from the pilot and demonstration projects, to the maximum extent practicable, in identifying and purchasing environmentally preferable products and services and shall modify their procurement programs as appropriate.*

## **Environmentally Preferable Products**

Environmental preferability is defined as "...products and services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose." To assist agencies in determining what constitutes environmental preferability, Section 503 of the Executive Order required EPA to develop final guidance on purchasing environmentally preferable products and services. The Executive Order permitted the guidance to be based on "...EPA's September 1995 Proposed Guidance on the Acquisition of Environmentally Preferable Products and Services and the comments received thereon." Additionally, the Executive Order encourages agencies to test and evaluate the principles and concepts outlined in the guidance by initiating pilot projects on products and services that are widely used within the Federal government. The guidance and the results from the pilot projects will provide the government with the foundation needed to

identify and purchase environmentally preferable products.

## **The Guidance**

A copy of EPA's *Final Guidance on Environmentally Preferable Purchasing* can be found in Appendix M. The final guidance draws on the procurement experiences of the agencies, the environmental expertise of EPA, and others both within and outside of the government, including non-governmental entities. Using five (5) recommended principles as a guideline, agencies are given an operating basis from which to determine the preferability of a product or a service.

Extracted from the proposed guidance, the principles are as follows:

- **Guiding Principle 1: Environment + Price + Performance = Environmentally Preferable Purchasing**

Environmental considerations should become part of normal purchasing practice, consistent with such traditional factors as product safety, price, performance, and availability.

- **Guiding Principle 2: Pollution Prevention**

Consideration of environmental preferability should begin early in the acquisition process and be rooted in the ethic of pollution prevention, which strives to eliminate or reduce, up front, potential risks to human health and the environment.

- **Guiding Principle 3: Life Cycle Perspective/Multiple Attributes**

A product or service's environmental preferability is a function of multiple attributes from a life cycle perspective.

- **Guiding Principle 4: Magnitude of Impact**

Determining environmental preferability may involve comparing environmental impacts. In comparing environmental impacts, Federal agencies should consider: the reversibility and

geographic scale of the environmental impacts, the degree of difference among competing products or services, and the overriding importance of protecting human health.

- **Guiding Principle 5: Environmental Performance Information**

Comprehensive, accurate, and meaningful information about the environmental preferability of a product or service is necessary in order to

determine environmental preferability.

Determining the environmental preferability of a product or service is an evolving process. The guidance establishes the foundation for applying the principles to pilot projects conducted by agencies. The results from these pilot projects will strengthen the foundation and provide direction to other agencies seeking to purchase environmentally preferable products or services.

## EPP Pilot Projects

The EPP Program offers case studies of agency pilot projects for purchasing environmentally preferable products and services. For a current

list, refer to the website: <http://www.epa.gov/opptintr/epp/fedpilotprojects.html>.

**T**he Department of the Interior, upon learning that their styrofoam cafeteria ware was being disposed of instead of being recycled, began its search for an alternative. DOI's efforts have been to eliminate as much as possible its cafeteria-related waste stream by providing either reusable (washable) or recyclable cafeteria products for its customers' use.

DOI is now working with EarthShell Corporation, manufacturers of starch-based cafeteria ware, to pilot test compostable alternative products (plates and bowls initially) at its headquarters' cafeteria. DOI currently purchases approximately 28,000 polystyrene plates, bowls and cups monthly. Based on the success of the pilot, DOI will look at other compostable food service items, such as flatware from BioCorp, and will also try to replicate the program at other parts of Interior. EarthShell will soon be supplying sandwich containers to McDonald's Corporation, and BioCorp is currently supplying items to some McDonald's locations in Europe. DOI's demand will help to bring the starch-based products to the marketplace. DOI is testing the compostability of the EarthShell products at USDA's Beltsville Agricultural Research Center and is also working to identify a facility to compost the used cafeteria ware and food waste to close the loop, which will help to reduce DOI's disposal fees.

**E**PA is preparing to "green" its photocopiers. With the help of the Office of Administration and Resources Management, as well as the EPP program staff, the agency is selecting environmental attributes for inclusion in its new photocopier contracts. Some environmental attributes will be mandatory while others will be optional.

A preliminary list has been developed based on the attributes used by other countries, including Japan, Spain, Germany, and Norway, when they purchase copiers. The list also includes information adapted from the standards for copiers developed by environmental certification organizations like Green Seal.



## Resources

For more information on Environmentally Preferable Purchasing, visit EPA's EPP Program web site: [www.epa.gov/opptintr/epp](http://www.epa.gov/opptintr/epp). This comprehensive web site serves as the main repository of information and resources related to environmentally preferable purchasing, including:

- Publications such as case studies, program updates, and fact sheets.
- Interactive features designed to elicit information exchange, such as topical discussion forums, a listing of upcoming events, a bulletin board for posting questions and comments and sharing users' experiences, as well as tools that have been helpful in implementing EPP.
- A list of top 20 prioritized product and service categories selected because they represent large volume Federal procurements with environmental impacts, along with a description of the methodology used. This list is provided to assist Executive agencies in selecting pilots that will have the most effect.

The site will also include training modules, a collection of promising green contracting practices, and a database of existing environmental standards, specifications, and contract language.

For a copy of the Final EPP Guidance, see Appendix M of this document.

**Greening Uncle Sam (GUS)** is a suite of tools being developed by EPA and consists of the following:

- **EPP Database** — Anyone looking for existing environmental attribute information (e.g., environmental standards and guidelines or contract language) will find it in the EPP Database. The database includes product-specific information developed by domestic and

international government programs, as well as third parties. Users will be able to browse the database or search for specific product categories. Users also will be encouraged to submit their own information so the database can be updated continually. The database can be accessed through the EPP web site, [www.epa.gov/opptintr/epp](http://www.epa.gov/opptintr/epp). Look for "Tools" under "How to Do EPP."

- **General Training Tool** – Basic EPP principles, along with some more in-depth applications of EPP, will be introduced in an entertaining multimedia format. Users will be able to watch, listen, and learn as EPP is explained with audio narration and animated graphics. (Users without data streaming and/or sound speaker capabilities will be able to visit accompanying web pages with the same text-based information.)
- **Pioneer/"How to Do EPP" Training Tool** – Also in multimedia format, this tool will prepare EPP "pioneers" for purchasing products or services not yet tackled by others. The tool provides the needed steps to identify appropriate environmental attributes for a chosen product or service and to navigate the procurement process within an organization.
- **Promising Practices Guide to Greener Contracting** – Initially this tool will include a series of short case studies highlighting successful EPP strategies implemented by several Federal agencies. Users will learn how others got started, what challenges were overcome, and how to duplicate their successes. Eventually the guide will include detailed

**For copies of EPA's Final Guidance on Environmentally Preferable Purchasing, contact The Pollution Prevention Information Clearinghouse at (202) 260-1023.**

information about how recent changes to the Federal Acquisition Regulation facilitate environmental purchasing. It also will include standard EPP language to insert into Federal purchasing contracts.

- **Green Conferencing Tool** – This multimedia tool will assist planners and service providers (e.g., hotels, printers, caterers) to recognize

green meeting and conference opportunities and practice them. The tool will provide planners with a comprehensive overview of the green opportunities within each of the different stages, products, and services involved in conference planning. For each opportunity, the economic and logistical impacts are analyzed. The tool also will include checklists and sample contract language.

## **Pentagon and EPA Building Projects**

### **Renovation and repair of the parking lot at the Pentagon**

The Pentagon parking lot is the largest surface parking lot in the world. This joint Department of Defense/EPA pilot project used contract language to encourage the paving contractor to search out paving products that have environmental benefits including reduced energy consumption, and increased use of postconsumer and other recovered materials. This project started in FY96 and will continue at least through the five-year term of the contract.

The Pentagon has 227,934 square feet of parking lots and roadways that were repaved with products that contain positive environmental attributes, without paying more or sacrificing quality, including the following:

- 3,328 tons of recycled asphalt;
- 1,031 tons of recycled concrete;
- 300 cubic yards of concrete containing recovered materials;
- 3,558 linear feet of recovered glass for reflective surfaces;
- 5,200 linear feet of rubber made of recovered tires; and
- 3,558 linear feet of paint that contains less smog-promoting compounds.

### **Renovation of interior office space in the Pentagon**

As a follow-on to the parking lot project, the DoD/EPA pilot project team developed innovative contract specifications to incorporate environmental considerations into product choices in a renovation contract for interior office space. A key element of this pilot project involved training Pentagon facility managers in evaluating construction materials such as paints, carpeting, and ceiling tiles for their environmental attributes.

Begun in FY97, the project will continue throughout the 10-year term of the contract.

### **Greening EPA buildings**

To further highlight the role of the Federal government in demonstrating "green" buildings practices, EPA also published *Leading by Example*, a case study that compares the Agency's own experiences developing its two largest and newest facilities, the Research Triangle Park, NC, Laboratory and Office Complex, and the new EPA Headquarters in the Federal Triangle area of Washington, DC. This case study focuses on the features of these two campuses that contribute to sustainability.

## Help for purchasers and manufacturers of products with environmental attributes

Manufacturers and vendors of products often place environmental claims on the products and/or the product packaging. Because these claims sometimes were unclear or over-stated, the Federal Trade Commission (FTC) issued its *Guides for the Use of Environmental Marketing Claims*. The Guides provide general principles for environmental marketing claims and specific guidance for the following claims: recyclable, recycled content, degradable/biodegradable/photodegradable, compostable, source reduced, refillable, and ozone safe/ozone friendly. Although these Guides are advisory in nature, they do provide the basis for voluntary compliance with Section 5 of the FTC Act, which makes unlawful deceptive acts and practices, including advertising or labeling that is false or misleading. The Guides provide examples of claims that are acceptable and claims that are considered to be deceptive. This format is very user-friendly and provides valuable information to both the manufacturer and purchaser of such products. Appendix I of this publication contains a copy of the FTC's Environmental Marketing Guides.

**Sec. 504. Designation of Biobased Items by the USDA.** *The USDA Biobased Products Coordination Council shall, in consultation with the FEE, issue a Biobased Products List. (a) The Biobased Products List shall be published in the Federal Register by the USDA within 180 days after the date of this order and shall be updated biannually after publication to include additional items.*

*(b) Once the Biobased Products List has been published, agencies are encouraged to modify their affirmative procurement program to give consideration to those products.*

### Biobased Products

Section 504 of Executive Order 13101 requires the USDA Biobased Products Coordination Council (BPCC), in consultation with the FEE, to publish a Biobased Products List and to update the list biannually to include additional items. A biobased product is defined in the E.O. as “a commercial or industrial product, other than food or feed which uses biological products or renewable domestic agricultural (plant, animal and marine, or forestry) materials.” USDA is publishing a list of criteria for biobased industrial products and is seeking public comment before publishing the actual list of products by compa-

ny name. (See attachment L for a copy of the Federal Register notice.)

Biobased products can offer many distinct environmental, energy, and resource conservation advantages and expand the nation’s capabilities to take advantages of new and innovative technologies. USDA has invested in, and continues to support, research, development, and commercialization of industrial products made from agricultural materials or by-products. Many of these products offer many performance advantages over conventional items, such as enhanced quality, durability, flexibility, and strength. They are also biodegradable when appropriate. Often, these products are preferable to those made from petroleum or other non-renewable sources. Examples of products currently commercially available include: absorbents derived from low-value wool or cotton linters, adhesives derived from plants, all purpose cleaners made from plant enzymes, construction materials made from wheat straw or other plant fibers, lubricants from oil seed crops, paints and coatings with seed oil based materials, renewable fiber papers, and various uses for vegetable starches.

Section 504 (b) of E.O.13101 encourages Federal agencies to modify their affirmative procurement program to give consideration to biobased

products. Companies producing biobased products continue to work with the General Services Administration and the Defense Logistics Agency to assure their products are included in the various Federal purchasing schedules and data bases.

In the 1996 Farm Bill, (section 729 of the Federal Agricultural Improvement and Reform Act, P.L. 104-127, Title VII, Subtitle A, Chapter 2, Section 1657c which amended section 1665 of the Food, Agriculture, Conservation and Trade Act of 1990 (7 U.S.C. 5909), procurement preference was given to those biobased products supported by investments from USDA's Alternative Agricultural Research and Commercialization Corporation (AARCC). This unique venture capital organization makes equity investments in small businesses to commercialize biobased industrial products from agricultural materials. The preference language is currently only in the Agricultural Acquisition Regulations (AgAR) and is found in the Federal Register of May 15, 1998 starting on page 26994.

USDA will cooperate in linking information on biobased products to the EPP data base.

Having a broad range of renewable biobased products available for purchase will help Federal agencies successfully meet their environmental goals and will stimulate research and development of additional environmentally friendly products and processes. Having a greater variety of green products available should also increase competition. Such products from renewable domestic resources will give the U.S. a reliable supply of industrial products for defense, industry, and the consumer. Increased use of biobased products will move the U.S. to an economy based on biology, and less on geology. Finally, commercialization of biobased products will help diversify American agriculture and bring sustainable economic development to rural communities.

**Sec. 505. Minimum Content Standard for Printing and Writing Paper.** *Executive agency heads shall ensure that their agencies meet or exceed the following minimum materials content standards when purchasing or causing the purchase of printing and writing paper: (a) For high speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, file folders, white wove envelopes, writing and office paper, book paper, cotton fiber paper, and cover stock, the minimum content standard shall be no less than 30 percent post-consumer materials beginning December 31, 1998. If paper containing 30 percent postconsumer material is not reasonably available, does not meet reasonable performance requirements, or is only available at an unreasonable price, then the agency shall purchase paper containing no less than 20 percent postconsumer material. The Steering Committee, in consultation with the AEEs, may revise these levels if necessary.*

*(b) As an alternative to meeting the standards in sections 505(a), for all printing and writing papers, the minimum content standard shall be no less than 50 percent recovered materials that are a waste material byproduct of a finished product other than a paper or textile product that would otherwise be disposed of in a landfill, as determined by the State in which the facility is located.*

*(c) Effective January 1, 1999, no executive branch agency shall purchase, sell, or arrange for the purchase of, printing and writing paper that fails to meet the minimum requirements of this section.*

### **Minimum Content Standards for Printing and Writing Paper**

Sec. 505 of Executive Order 13101 requires all Federal purchases of specified uncoated printing and writing paper to contain a minimum of 30 percent postconsumer material as of December 31, 1998. Agencies can purchase paper containing 20 percent postconsumer

material if paper containing 30 percent postconsumer material is not reasonably available, does not meet reasonable performance requirements, or is only available at an unreasonable price.

There are no price, performance, or availability exceptions to the 20 percent postconsumer content requirement.

### National Stock Number

7530-01-335-2623

30POSTCOPIER

7530-01-454-8006

7530-01-398-2652

7530-01-398-2656

7530-01-334-7817

7530-01-398-2653

7530-01-085-5225

7530-01-150-0334

7530-01-148-1766

7530-01-147-6812

7530-01-147-6811

7530-01-156-4689

7530-01-146-3361

To obtain copier paper that meets or exceeds the postconsumer content standards in E.O. 13101, use the following National Stock Numbers to order from GSA:

### Paper Size

8 1/2 x 11

8 1/2 x 11

8 1/2 x 11

8 1/2 x 11

8 1/2 x 11

8 1/2 x 14

8 1/2 x 14

8 1/2 x 17

8 1/2 x 11

8 1/2 x 11

8 1/2 x 11

8 1/2 x 11

8 1/2 x 11

8 1/2 x 11

### Comments

White, multipurpose

White, 20 lb.

White, Xerox brand

White, Archival quality

White bond, archival quality

White, multipurpose

White, Archival quality

White

Pink, JWOD

Buff, JWOD

Green, JWOD

Yellow, JWOD

Goldenrod, JWOD

Blue, JWOD

In addition to the above stock numbers, GSA offers 30 percent postconsumer content paper through its schedule program, on schedule 75 Part XI, SIN 466-14. Visit the White House Task Force on Waste Prevention and Recycling's web site at [www.ofee.gov](http://www.ofee.gov) for information about the contractors, contract numbers, and brands offered through this GSA schedule.

To order postconsumer content copier paper from the Government Printing Office, use specification JCP O-65 for 30 percent white or colored copier paper or JCP O-70 for 100 percent content with at least 50 percent postconsumer fiber.

EPA's recommendations for purchasing paper and paper products containing recovered materials can be found in two Recovered Materials Advisory Notices. Agencies should use the recommendations in the first Paper Products RMAN, published on May 29, 1996 (61 FR 26992), for purchasing all paper and paper products except the specific uncoated printing and writing papers listed in E.O. 13101. Paper Products RMAN II, published on June 8, 1998 (63 FR 31214), incorporates the 30 percent postconsumer content standard established in the E.O. All of EPA's paper and paper products recommendations are shown in the table above.



Note that EPA's recommendations are for post-consumer and recovered *fiber*, which is the material recovered from used paper and processed into new paper and paper products. Purchase of a product containing 30 percent postconsumer fiber satisfies the E.O. 13101 directive to purchase paper containing 30 percent postconsumer material.

In addition to recommending content levels, the first Paper Products RMAN provides information on several issues which have surfaced since the 1988 paper procurement guideline was implemented. For example, a detailed method is provided for calculating recycled content. In the first Paper Products RMAN, EPA also suggests that agencies consider how the papers they purchase affect the type and amount of paper waste they generate. Agencies must understand that colored paper will be a complicating factor in an agency's recycling program.

EPA recommendations can be viewed electronically on EPA's CPG web site at [www.epa.gov/cpg](http://www.epa.gov/cpg). For paper copies of the Paper Products RMANs, contact the EPA RCRA Hotline (800) 424-9346.

Each of us makes purchasing decisions every day. The federal government only buys two percent of all the copier paper sold in the United States. Think of the positive impact on the environment if the remaining 98 percent of the copier paper sold contained recycled content.

***Sec. 506. Revision of Brightness Specifications and Standards.*** *The GSA and other executive agencies are directed to identify, evaluate, and revise or eliminate any standards or specifications unrelated to performance that present barriers to the purchase of paper or paper products made by production processes that minimize emissions of harmful byproducts. This evaluation shall include a review of unnecessary brightness and stock clause provisions, such as lignin content and chemical pulp requirements. The GSA shall complete the review and revision of such specifications within 6 months after the date of this order, and shall consult closely with the Joint Committee on Printing during such process. The GSA shall also compile any information or market studies that may be necessary to accomplish the objectives of this provision.*

**E**xecutive Order 13101 directs all federal agencies to cease purchasing copier paper unless it contains 30 percent recycled content. For the paper industry alone, this decision will result in:

- 450,000 to 500,000 fewer trees cut down annually for paper production.
- 16,000 tons of carbon absorbed annually by the trees that remain standing.
- 12 percent reduction in energy used in producing copier paper.
- 14 percent average reduction in air emissions and greenhouse gases.
- 13 percent reduction in the amount of solid waste requiring disposal.
- 13 percent reduction in water pollutants.



## Revision of Brightness Specifications and Standards

Brightness, as a characteristic in paper specifications has often been seen as a barrier to supplying recycled content paper to the Government. There are four sources for paper and paper product specifications and standards for Government use: (1) Joint Committee on Printing (JCP) printing paper specification; (2) GSA paper and paper product specifications; (3) Government Printing Office (GPO) paper and paper product specifications; (4) Military specifications. By statute, the JCP is responsible for setting specifications for printing papers used by Federal agencies. GSA is responsible for preparing Federal specifications for non-printing papers and CIDs (Commercial Item Descriptions) for the Federal government." GPO issues specialized printing paper and paper product specifications for its own procurement program. Military specifications are used in military procurements.

To comply with the brightness requirements of Sec. 506 of E.O. 13101, the JCP has reviewed and issued a revised Government Paper Specification Standards Book (No. 11), dated February 1999. The GPO has also completed its review of all non-JCP printing paper specifications. Additional GPO/JCP paper product specifications are being reviewed and revised as an ongoing project.

Although the Executive Order does not prohibit the use of chlorine as a brightening agent, GSA uses contract/solicitation language to allow agencies to specify chlorine-free brightening in their paper purchases. In GSA solicitations, the following language appears: "...to obtain an acceptable brightness a chemical bleaching process may be used. When specified in the ordering data, the bleaching process shall not include the use of chlorine, chlorine dioxide, hypochlorite, or other chlorine containing compound."

**Sec. 507. Procurement of Re-refined Lubricating Oil and Retread Tires.** (a) *Agencies shall implement the EPA procurement guidelines for re-refined lubricating oil and retread tires. Fleet and commodity managers shall take immediate steps, as appropriate, to procure these items in accordance with section 6002 of RCRA. This provision does not preclude the acquisition of biobased (e.g., vegetable) oils.*

(b) *The FEE shall work to educate executive agencies about the new Department of Defense Cooperative Tire Qualification Program, including the Cooperative Approval Tire List and Cooperative Plant Qualification Program, as they apply to retread tires.*

## Procurement of Re-Refined Lubricating Oil and Retread Tires

Used and discarded oil and tires present a significant environmental challenge to American society. As a result of the passage of RCRA, EPA undertook extensive research on the products available and the technologies in those industries. Ultimately, EPA designated re-refined oil and retread tires for Federal procurement in 1988. Unfortunately, acquisition of these recycled content products has been moving at a glacial pace. According to data collected by the Office of Management and Budget for Fiscal Year 1997, Federal agency use of retread tires was approximately 8 percent, a decline from the FY95 level of 10 percent of Federal tire purchases. During this same time, Federal re-refined oil purchases rose to 17 percent of all lubricating oil purchases from six percent in FY95 and less than one percent in 1993. The Federal government maintains over 300,000 vehicles (plus an additional 200,000 Postal Service vehicles), and logically, would be a good customer for re-refined oil and retread tires. As mentioned above, lubricating oil and retread tires were two of the first five "Guideline" Items listed by EFA under RCRA "Buy-Recycled" requirements. That meant Federal agencies purchasing lubricating oil and tires in excess of \$10,000 a year were obligated to purchase tire retreading ser-

VICES or retread tires and to purchase lubricating oils containing a minimum of 25 percent re-refined base stock.

## Re-refined Oil

While prices may fluctuate slightly, re-refined lubricating oil costs about the same as virgin motor oil, and is a much better deal for the environment. Each year cars and trucks in America produce over 1.3 billion gallons of used motor oil. Eighty million gallons of this used oil is disposed of improperly, contaminating our land and our water supplies. Just one gallon of used oil—the typical amount drained from one car’s crankcase—can contaminate a million gallons of fresh water. This is also a significant waste of a valuable, non-renewable resource. It takes about a barrel (42 gallons) of crude oil to yield 2.5 quarts of base stock for lubricants. Re-refining just one gallon of used motor oil recovers the same amount of base stock, 2.5 quarts. The cost to society of not being careful stewards of this resource is significant, especially in terms of our reliance on foreign oil imports and the environmental damage by the improper disposal of used oil.

The good news is, oil never wears out! It just gets dirty and can be readily recycled through technology similar to that used to refine crude oil.

In E.O. 12873, and again in E.O. 13101, Federal agencies are directed to lead the way in procuring re-refined oil products. The Office of the Federal Environmental Executive was given the task of determining how to ensure agency compliance. Initially, agencies were slow to accept re-refined motor oils and lubricants for their vehicles. A concoction of myths had circulated among procuring officials and end-users about performance, availability, and the prospects of vehicle engine warranties being voided if re-refined oil was used. The Office of the Federal Environmental Executive was determined to

investigate, and if appropriate, “debunk” each of these myths using the facts about re-refined oil. As it turns out, the warranty point was not a myth after all, and needed attention.

Most of the civilian Federal fleet of vehicles is managed by GSA. As a result, GSA guidelines are generally followed by other Federal agencies. Until February 1995, GSA’s written manual prohibited the use of re-refined oil because the oil’s performance was not certified by the American Petroleum Institute (API), and it was unclear whether use of re-refined oil would void manufacturers’ warranties as issued by the “Big Three” domestic auto makers. However, at least four re-refined oil vendors sell API-certified products. With that knowledge, the Federal Environmental Executive convened an “Oil Summit” in December, 1994, with representatives of GSA fleet management, other Federal agencies, oil manufacturers, and automakers. At that meeting, the Big Three warranted re-refined oil use in their vehicles as long as the oil was properly certified by the API. The API Starburst symbol would be used as the official certification indicator. The warranty issue was thereby resolved. Finally, on February 27, 1995, GSA announced that re-refined oil, bearing the Starburst symbol, should be used in Federal vehicles (see Appendix E for warranty statements and GSA policy letter).

Now that these hurdles have been cleared, Federal agencies must concentrate on increasing Federal demand for re-refined oil. A key player in the marketing strategy is DLA, because it’s a major lubricating oil supplier to Federal organizations.

The Defense Supply Center Richmond offers 5W30, 10W30 and 15W40 re-refined lubricating oils that meet commercial and military specifications. Ordering information is as follows:

## Administrative Commercial Motor Oils

NSN	Viscosity	Unit of Issue	FY00 Price
9150-01-422-9253	5W-30	Box of 12 quart bottles	\$11.84
9150-01-422-9326	5W-30	55 gallon drum	\$145.23
9150-01-413-6897	10W-30	Box of 12 quart bottles	\$10.16
9150-01-413-6892	10W-30	5 gallon container	\$17.54
9150-01-413-6990	10W-30	55 gallon drum	\$143.23

These oils meet the API "SH" performance classification, the International Lubricant Standardization and Approval Committee "GF-1" standard, and are Energy Conserving II.

## Heavy-Duty Diesel Commercial Motor Oils

NSN	Viscosity	Unit of Issue	FY00 Price
9150-01-422-8899	15W-40	Box of 12 one-quart bottles	\$9.55
9150-01-422-8750	15W-40	5 gallon container	\$17.78
9150-01-422-8746	15W-40	55 gallon drum	\$151.54
9150-01-422-9250	30	Box of 12 one-quart bottles	\$11.60
9150-01-422-9247	30	5 gallon container	\$15.51
9150-01-422-8997	30	55 gallon drum	\$161.84
9150-01-422-8901	40	55 gallon drum	\$183.55

These oils are intended for use in diesel engines in tactical-wheeled vehicles, and are not intended for use in transmissions or hydraulic systems. The 15W-40 meets the American Petroleum Institute (API) "CF", "CF-2" and "CG-4" performance classifications and the 30 and 40 grades meet the "CF" and "CF-2" API performance classifications.

## Re-refined Tactical MIL SPEC Motor Oils

NSN	Viscosity	Unit of Issue	FY00 Price
9150-01-421-1427	15W-40	1 Quart bottle	\$1.13
9150-01-421-1424	15W-40	5 gallon can	\$17.95
9150-01-421-1432	15W-40	55 gallon drum	\$177.35

This 15W-40 combat/tactical service engine oil has a 25 percent minimum re-refined base stock content and meets all the requirements of MIL-L-2104. In addition, it has been qualified by the US Army Tank, Automotive, and Armaments Command for listing in the current qualified products list. The 15W-40 oil under this military specification meets the American Petroleum Institute's (API) CD II/CE/CF-4/SG performance levels.

MIL-L-2104 engine oils are designed for use in all combat and tactical, diesel and gasoline engine-powered ground vehicles and equipment, and include performance requirements for power shift transmissions. This oil is also used in many hydraulic, power steering, power transmission, and gear box applications, as specified by the lube orders.

DLA also offers a closed loop oil program that combines used oil collection with supply of re-refined oil. Here is how the Closed Loop Program works. Once a customer orders one of the National Stock Numbers (NSNs) from the Closed Loop Program they are automatically in the program. (The current NSNs are listed on the following page.) DSCR has contracted with Safety Kleen Corporation to deliver the oil to customers in the continental U.S. within seven days of receipt of order. This program also

includes the pick-up of the used oil at no additional charge. All the customer has to do is call 1-800-525-5739 and they will have their used oil picked up within 72 hours of the call. The program does not accept contaminated oils-basically not to exceed water content of 15% and very little antifreeze should be in the oil.

For more information about the DSCR program, contact Mr. Jim Fazzio by email at : [jfazzio@dscr.dla.mil](mailto:jfazzio@dscr.dla.mil) or phone (804) 279-4908/DSN 695-4908.



## Closed-Loop Contract

NSN	Viscosity	Unit of Issue	FY00 Price
9150-01-438-5875	10W-30*	Box of 12 one-quart bottles	\$10.53
9150-01-438-5882	10W-30*	5 gallon container	\$16.11
9150-01-438-5891	10W-30*	55 gallon drum	\$146.66
9150-01-438-5933	10W-30*	gallon (bulk)	\$2.29
9150-01-438-5905	15W-40**	Box of 12 one-quart bottles	\$10.30
9150-01-438-6064	15W-40**	5 gallon container	\$16.04
9150-01-438-6066	15W-40**	55 gallon drum	\$148.36
9150-01-438-6071	15W-40**	gallon (bulk)	\$2.35
9150-01-438-6076	15W-40***	1 qt plastic	\$1.01
9150-01-438-6082	15W-40***	5 gallon can	\$15.20
9150-01-438-6079	15W-40***	55 gallon drum	\$159.57
9150-01-438-6084	15W-40***	gallon (bulk)	\$2.50
9150-01-460-7526	30W	1 qt plastic	\$1.00
9150-01-460-7536	30W	5 gallon container	\$15.20
9150-01-460-7518	30W	55 gallon drum	\$153.86
9150-01-460-7956	40W	55 gallon drum	\$155.30
9150-01-460-7897	30W	gallon (bulk)	\$2.50
9150-01-460-7965	40W	gallon (bulk)	\$2.61

\*10W-30 iaw CID A-A-52039

\*\*15W-40 iaw CID A-A-52306

\*\*\*15W-40 iaw Military Specification MIL-L-2104

The 10W30 meets the American Petroleum Institute's "SH" performance classification and the International Lubricant Standardization and Approval Committee "GF-1" standard. The Mil Spec 15W40 meets all the requirements of MIL-L-2104 and has been qualified by the Army's Mobility Technology Center-Belvoir, Fort Belvoir, VA for listing in the current qualified products list. All oils under this specification meet the American Petroleum Institute's CD and CD-II performance levels.

## Retread Tires

Approximately 240 million scrap tires are generated in America every year, about one for every person in America. Many of these tires are discarded into landfills, not because there aren't better uses for them, but because we don't have markets for this potential resource. When discarded tires are thrown in above ground heaps, they are not just an eyesore, but a potential breeding ground for rats and mosquitoes. They become major sources of air, water and soil pollution when they (all too frequently) catch fire.

Many people are surprised to learn the tires on U.S. commercial aircraft, the tires on the fire trucks and emergency vehicles protecting us, and nearly all "over-the-highway" truck tires are retreads - and have been for years. With a history similar to that for re-refined oil, the demand for the product has been problematic. Could anyone really expect an alleged inferior, unsafe product to sell? To make matters worse, the supply/distribution network was not good. However, GSA maintained a tire QPL and had a

Quality Assurance Facility Inspection Program (QAFIP) to ensure high quality facilities are available to retread our tires.

The Army's Tank-automotive and Armaments Command (TACOM) now manages the retread tires program. TACOM offers a Military Retread Program for tactical tires, a Cooperative Tire Qualification Program (CTQP) for non-tactical tires, and a retread facility inspection program, called the Cooperative Plant Quality Certification (CPQC). The CTQP applies to passenger car tires, light truck tires, truck and bus tires, and off-road/low-speed tires. As with GSA's program, the CTQP tests tires using an on-vehicle test. A Cooperative Approved Tire List (CATL) is published for government use; it lists all of the qualified manufacturers, manufacturer brand names, tread class, and codes by tire group. The following table lists the retreaders qualified as of February 1999. The CATL lists the tire model or brand designations that are qualified. See Appendix C for the company addresses.

<b>Tire Group</b>	<b>Company</b>	<b>Qualification Expiration Date</b>
Group 1, Passenger	Frank Fargo Tire & Rubber Company	January 1, 2000
Group 2, Light Truck	Bandag Incorporated	November 11, 2003
	The Goodyear Tire & Rubber Company, Retread Division	December 28, 2003
	Hercules Tire & Rubber Company, Retread Division	April 1, 2004
Group 3, Truck and Bus	Oliver Rubber Company	February 1, 2004
	Bandag Incorporated	January 1, 1999 (extended until next requalification run)
	The Goodyear Tire & Rubber Company, Retread Division	January 1, 2001

Tire Group	Company	Qualification Expiration Date
	Hercules Tire & Rubber Company, Retread Division	Extended until next requalification run
	Oliver Rubber Company	February 5, 2005

For further information about the TACOM program, contact Team Tire at [teamtire@tacom.army.mil](mailto:teamtire@tacom.army.mil). For copies of the CATL, contact TACOM's contractor, Mark Swift of ACTS, Inc. at [swiftacts@aol.com](mailto:swiftacts@aol.com), or 810-677-5745.

The environmental advantages to using retreads are enormous. Some 22 gallons of oil are required to manufacture a new truck tire, whereas only 7 gallons are needed to retread that same tire. That savings of 15 gallons of oil per truck tire would translate to a savings of 258 million gallons of oil to be saved every year. When considering all the various tire types,

retreading truck and other tires actually conserves more than 400 million gallons of oil annually. New tires require 14,700 Btus of energy per pound of tire produced, whereas retreads only need 2,200 Btus per pound. Capturing such savings could be critically important in achieving and maintaining America's oil independence.

**S**uppose you are driving to work in your car and you realize one of your tires is going flat. Without exception, you will stop and change the tire. You may not like it especially if it is raining, snowing, you are in a hurry, etc., but there is no way you can continue driving with a flat tire.

Now suppose you are driving an eighteen wheel tractor-trailer and you hear or feel a tire developing symptoms of trouble. Unless it's a front (steering) tire and you have no choice but to stop, you should be able to continue driving until you get to a truck stop where the tire can be changed more easily. After all, you have seventeen other tires to keep the truck going. Plus, the cost of changing a tractor-trailer tire on the road is between \$400-500.

Now suppose the damaged tire is actually a brand new tire that had been installed just last week and had never been near a retread factory. It was either defective or it happened to pick up a nail which caused it to go flat. As you keep driving your eighteen wheeler to the truck stop, the damaged tire will continue to lose air and overheat. If you drive long enough the tire will finally disintegrate and blow rubber pieces all over the highway.

Now remember, we said the tire that came apart was a new tire that had never been near a retread factory. But you can be certain the person in the car behind your truck will say, "Look at that! Another retread! There ought to be a law against those things!"

So you see, the retread industry takes the blame for much of the rubber on the road although a large percentage of the "ugly alligators" comes from new tires which have never been retreaded.

Harvey Brodsky, Tire Retread Information Bureau

*The Tire Retread Information Bureau would be happy to provide you with information and videos that will help dispel retread myths. Contact TRIB at 888-473-8732 or by e-mail at [retreads@aol.com](mailto:retreads@aol.com).*

**R**etreads are routinely and safely used by school buses, fire, and other emergency vehicles, commercial aircraft, and by millions of passenger cars and trucks. The U.S. Postal Service routinely uses retreads knowing they will perform the same as new tires, and at a far lower cost. Retreads can do the same for vehicle fleets across the Federal government. Contact the National Recycling Coalition, Inc. (703) 683-9025 for a Retread Tire Information Sheet and EPA's RCRA Hotline at (800) 424-9346 or (703) 412-9810 for their Vehicular Products fact sheet.

There is also a significant cost advantage to using retreads. With comparable quality, retreads cost between one-third and one-half that of new tires. This translates to almost \$2 billion in savings each year to tire consumers.

With this economic incentive, truckers have made retreads their choice for more than 50 years. In fact, in 1998, truckers purchased 19.4 million medium truck tire retreads compared to 14.5 million new medium truck tires. The heavy truck tires are actually made to be retreaded many times, and only an estimated 30 percent of a new tire investment is realized when the original tread has been worn from its casing. Although lighter tires represent a lesser savings when retreaded compared to the heavy truck tires, still a substantial savings can be realized. Regardless, the cost per mile will be less with a retread than with a comparable new tire.

Although the economic case to be made for retreading passenger tires is not as good as that for the heavier tires, when properly retreaded, these lighter tires can gain an additional 35,000

miles of use. The CATL and CPQC list retread passenger tires meeting certain minimal Federal quality standards.

One of the most persistent myths about retread tires is they are inferior in quality and unsafe to use. People often point to the pieces of tire along our highways as evidence for the claim that retread caps chronically separate from their old casings, assuming the pieces beside our highways are from those sources. While there may have been some basis for that allegation twenty-five years ago, today's retreads are no more likely to separate than non-retreaded tires. The reality is that rubber on the road is caused by tire abuse - - whether the tire is new or a retread. If a tire is abused (overloaded, under inflated, or mismatched to the other tire on a set of dual wheels on a truck), or if the tire isn't taken out of service when it begins to have a problem, the tire is going to come apart and leave rubber debris all over the highway. The fact is, pieces of new tires are as common along the roadside as pieces of retreads.

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<sup>1</sup>EPA's recommendations also reference appropriate government and commercial specifications, GSA schedules or contracts, and other information pertinent to purchasing the designated products containing recovered materials.

<sup>2</sup>EPA recommends a postconsumer fiber content because fiber is the material recovered from used paper and processed into new paper or paper products. Purchasing a paper product containing 30 percent postconsumer fiber meets the E.O. 13101 directive to purchase paper containing 30 percent postconsumer material.



# Part 6

## Agency Goals and Reporting Requirements

**Sec. 601. Agency Goals.** (a)(1) *Each agency shall establish either a goal for solid waste prevention and a goal for recycling or a goal for solid waste diversion to be achieved by January 1, 2000. Each agency shall further ensure that the established goals include long-range goals to be achieved by the years 2005 and 2010. These goals shall be submitted to the FEE within 180 days after the date of this order. (2) In addition to white paper, mixed paper/cardboard, aluminum, plastic, and glass, agencies should incorporate into their recycling programs efforts to recycle, reuse, or refurbish pallets and collect toner cartridges for remanufacturing. Agencies should also include programs to reduce or recycle, as appropriate, batteries, scrap metal, and fluorescent lamps and ballasts.*

*(b) Agencies shall set goals to increase the procurement of products that are made with recovered materials, in order to maximize the number of recycled products purchased, relative to non-recycled alternatives.*

*(c) Each agency shall set a goal for increasing the use of environmentally preferable products and services for those products and services for which the agency has completed a pilot program.*

*(d) Agencies are encouraged to incorporate into their Government Performance Results Act annual performance plans the goals listed in subsections (a), (b), and (c) above, starting with the submittal to the Office of Management and Budget of the plan accompanying the FY 2001 budget.*

*(e) Progress on attaining these goals should be reported by the agencies to the FEE for the biennial report specified in section 302(a)(2) of this order.*

### Agency Goals

Goals for solid waste prevention, recycling, or solid waste diversion are paramount in setting the direction and intensity of agency recycling programs. It is through the process of determining goals that issues, barriers, obstacles and resources are identified. Without this process, the strategies and required actions will not be identified and developed that will accomplish the mission and vision as laid out in the government-wide Greening the Government Strategic Plan nor the objective of the Executive Order itself.

Goal selection is an arduous process that may be both taxing and rewarding. Results can fall short of realization if goals, both large and small, are not put down in writing. To assure recycling efforts are proceeding in a productive fashion and they are not taking away from current efforts or past accomplishments, goals must be familiar to all involved. People need to know what is expected of them so they will perform at their peak.

**Goals and the Executive Order 13101 Government-Wide Strategic Plan** — The Government Performance & Results Act of 1993 (GPRA) stresses the importance of strategic plans for the Federal government. The elements of a strategic plan should include a mission statement, goals and objectives, strategies, performance measures, obstacles, and stakeholders. The following are some of the purposes of strategic plans as outlined in GPRA:

- Improve the confidence of the American people in the capability of the Federal government, by systematically holding Federal agencies accountable for achieving program results;
- Improve Federal program effectiveness and pub-



## Setting Goals

In setting goals and prioritizing various possible actions, it is important that the goals reflect statutory and executive order authority. Goals should be results oriented, derived from a strategic assessment, and reflect what the agency must do to achieve its part of the vision as identified by the mission. Consequently, the various programs of the agency must “generate” their own goals to complement the agency wide goals to achieve the vision and mission.

Furthermore, goals should be specific about what is to be accomplished and when. Accomplishment of the goal (or lack thereof) should be indisputable. Finally, goals should remain within the agency control.

Numerical waste prevention goals can be misleading if terms are not specifically defined. Clearly defined goals include a percent reduction, a baseline year, a target year for achievement, a measurement method, and specified waste streams. Recycling, waste prevention, waste diversion and procurement goals should complement and support each other.

Some examples of results-oriented goals:

- reduce the number and severity of road collisions
- increase literacy
- decrease amount of illegal drugs entering U.S.

Goals should **NOT** include issues of internal management processes or activities. Examples of internal management and process/activities include:

### Strategies of Internal Management:

- empower the workforce
- create a sound working environment

### Process/Activities:

- increase customer satisfaction
- facilitate interagency coordination
- re-engineer our work processes
- promote understanding about mission

lic accountability by promoting a new focus on results, service quality and customer satisfaction;

- Help Federal managers improve service delivery, by requiring that they plan for meeting program objectives and by providing them with information about program results and service quality;
- Improve Congressional decision making by providing more objective information on achieving statutory objectives, and on the relative effectiveness and efficiency of Federal programs and spending; and
- Improve internal management of the Federal government.

*The Strategic Plan To Implement Executive Order 13101* was published on March 12, 1999 and is available at <http://www.ofee.gov/>. The mission identified in the government-wide strategic plan is to increase (1) waste prevention, (2) recycling and the (3) acquisition of recycled content and environmentally preferable products and services for the benefit of the American people.

Based on this mission statement, and in accordance with the EPA National Goal, the national recycling goal for the Federal government is 35 percent diversion by 2005. This is to be accomplished by increased recycling and waste prevention efforts. All Federal agencies are expected to advance the attainment of this national goal with their respective waste diversion rates. In addition, all Federal agencies are expected to demonstrate significant increases in procurement of recycled content products from each preceding year through 2005.

In order to meet these goals, Federal agencies must:

- Improve and expand diversion of solid waste through waste prevention, reuse, and recycling;
- Facilitate the development and expansion of markets for recycled content and environmentally preferable products through greater Federal government acquisition and use of these products and services, research and development programs, assistance programs, and other appropriate programs;

- Facilitate the development and expansion of technology for waste prevention, recycling (including design for disassembly), and manufacture of recycled content and environmentally preferable products;
- Expand waste prevention and recycling opportunities and activities in the daily operation of the Federal government; and
- Implement cost-effective procurement programs favoring the purchase of environmentally preferable products and services.

Federal agencies must establish specific goals and time tables for: (1) waste prevention and recycling or solid waste diversion, (2) affirmative procurement of products that are made with recovered materials, and (3) procurement of environmentally preferable products and services for which a pilot project has been successfully completed. On an annual basis, agencies will evaluate their progress toward attaining these goals. Again, the process for establishing each goal should include identifying a method of measurement, a baseline, a goal year, and the materials/processes covered by that goal.

Section 601(d) of E.O. 13101 encourages Federal agencies to incorporate their E.O. 13101 goals into their GPRA plans. To assist the agencies, the Task Force will develop model language on GPRA goals that will be disseminated for use as deemed appropriate.

## Reporting Requirements

Agency goals were to have been submitted to the FEE by March 14, 1999. Progress on attaining these goals should be reported by the Federal agencies to the FEE for the report to the President. The first report is currently scheduled for April 2000. The agencies should report progress to the FEE prior to October 1st of each year for purposes of the report to the President.

Section 6002 of the Resource Conservation and Recovery Act (RCRA) requires the Office of Federal Procurement Policy (OFPP) to report to Congress every two years on the actions taken by Federal agencies to implement the statute. In addition, E.O. 12873, the predecessor to E.O. 13101, directed the FEE to report to OMB annually on agencies' actions to implement the Order. The OFPP and the FEE have worked closely together to combine the reporting requirements of RCRA and E.O. 13101. At the present, the Administrator of OFPP and the FEE send a survey to the top six procuring agencies, with voluntary participation from the United States Postal Service to complete for incorporation into the RCRA Report. These top procuring agencies account for approximately 89% of the total procurement procurements. These agencies should give an accurate presentation of the Federal agencies' overall procurement practices and compliance with RCRA guidelines. This does not however, excuse those agencies that are not included in the RCRA

### Department of Defense Measures of Merit (MOM)

*“By the end of 2005, ensure the diversion rate for non-hazardous solid waste is greater than 40%, while ensuring integrated non-hazardous solid waste management programs provide an economic benefit when compared with disposal using landfilling and incineration alone.”*

This goal, established by the Department of Defense in 1998, supersedes an earlier goal that required a 50% increase in the amount of solid waste recycled (using 1992 data for a base line). By 1997, DoD had increased recycling by 120% compared to the 1992 baseline. As a result of its overwhelming success in achieving its previous goal, DoD is confident that its installations can continue to improve. Installations can nearly double by 2005 the amount of solid waste currently being diverted from disposal facilities.

Clear and definitive guidance for each element of the goal is available, including the diversion rate calculation, economic benefit of solid waste management calculation, and the optional waste-to-energy incineration calculation.

## Department of Energy's Goals

The Department of Energy (DOE) set its first Department-wide waste reduction, recycling and buying green (affirmative procurement) goals in May 1996. Because of the importance of nuclear materials in DOE's mission and waste stream, the waste reduction goals included targets for radioactive, hazardous and sanitary (i.e., solid) wastes. DOE has set goals to reduce sanitary (solid) waste generated by routine operations by 33 percent by December 31, 1999 (compared to a Calendar Year 1993 baseline), to recycle at least 33 percent of all sanitary (solid) waste each year, and to buy 100 percent of the EPA-designated items with recycled content, except where they are not commercially available competitively at a reasonable price or do not meet performance standards. Performance measures for these goals have been put into the Secretary's Annual Performance Agreements with the President and into the Department's annual Government Performance and Results Act (GPRA) performance plans, which are submitted with DOE's budget requests. Annual reports on waste generation and recycling show that the 1996 goals have been met as of the end of 1998. The DOE is now at an astonishing department-wide 85 percent for buying green in 1999.

DOE is currently in the process of setting new goals for 2005 and 2010. The process which DOE uses for setting Departmental goals includes six basic steps:

1. Assess existing Federal agency goals.
2. Set draft goals.
3. Send draft goals to Field and Headquarters (Waste Reduction Steering Committee) personnel for review and comment.
4. Incorporate comments and revise draft goals as necessary.
5. Obtain Principal Secretarial Officers' (Assistant Secretary level) concurrence.
6. Issue final goals.

Involving the Field Offices in the goal setting process has several benefits. First, Field Offices have a valuable perspective regarding implementation, since they are directly involved in the day to day operations of DOE sites. Second, Field Offices are more aware of the requirements by participating in the process of goal setting. Finally, Field Offices feel a sense of ownership and are more apt to successfully achieve goals which they have participated in setting.

The Department of Energy has a philosophy of continuous improvement and is working toward approaching zero waste and emissions and optimizing its use of resources, including buying recycled and energy efficient products.

report from having to comply with RCRA.

E.O. 13101 directs the establishment of a work group to develop recommendations for tracking and reporting requirements. The work group is now meeting to strive to streamline and simplify future RCRA reporting requirements. Automated reporting mechanisms, simplified reporting techniques, and new ways of formatting data are some of the topics that are being examined by the work group.

The Task Force will publicize agency goals and progress on an annual basis.

### Execution: Measuring Results

Measurement systems are important for effective waste prevention programs not only because data can be used to set realistic goals for the program and establish program priorities, but also because they allow managers to track and evaluate the progress of the waste prevention activities. By evaluating the program periodically, agencies can:

- keep track of program successes and build on them,
- identify new ideas for waste prevention,
- identify covered items as well as items not subject to the goals.
- identify areas needing improvement,
- determine the effect of any additions to the program,
- keep employees informed and motivated, and

- recognize and reward their accomplishments.

**Remember: “What Gets Measured, Gets Done”** — It is useful for agencies to determine their measurement strategy as they develop waste prevention goals and assign waste prevention programs so that measurement is an integral part of their efforts, rather than an issue to be addressed later. A measurement strategy will help managers monitor the success of their program and allow them to report progress in meeting stated goals to the FEE more easily and accurately.

## NASA’s Reporting System

**N**ASA has made it easier to track and report on environmental information. The NASA Environmental Tracking System (NETS) is an agency wide database application that supports the collection, aggregation, analysis, and reporting of environmental information required for agency-level reporting to other Federal agencies and organizations, agency wide metrics, and functional management. NETS is sponsored by the NASA Headquarters Environmental Management Division. As NASA’s functional Lead Center for Environmental Information Systems, the John H. Glenn Research Center (GRC) in Cleveland, Ohio contracts for and oversees NETS development and operation. Fourteen NASA sites across the U.S. have access to NETS.

The primary goals of the NETS application are to:

- Improve the quality of data submitted by standardizing data, and enforcing adherence to specific validation criteria;
- Reduce the high level of staff time currently required to collate, convert and summarize the data; and
- Minimize the turnaround time for the submission of data from NASA Centers.

NETS provides a single logical agency database and graphical user interface for direct end-user input. Users across the agency are responsible for entering data on a scheduled basis or as requested by Headquarters. Both Headquarters and Center users will be able to access the database for near “real-time” report generation and data analysis. The NETS database resides at the NASA Automated Data Processing (ADP) Consolidation Center (NACC) at Marshall Space Flight Center (MSFC) in Huntsville, Alabama. The Agencywide Distributed Environment (ADE) is the communication backbone that links each of the fourteen sites to the NETS database. Powerbuilder was selected as the NETS application development tool. The application is supported for both the PC and Macintosh platforms.

NETS development is being conducted in multiple phases. The first phase is operational and supports internal and external Agency reports for Pollution Prevention, Ozone Depleting Chemical usage, Recycling and Solid Waste, and related metrics. A NETS Energy module was released in April 1999. Other modules for tracking hazardous waste disposal and other major areas of environmental functional management of interest to the Agency are planned for release by the end of FY 1999. Future modules will support reporting of FEDPLAN projects, National Environmental Policy Act (NEPA) planning activities and metrics; Federal archeological activities; environmental and energy management self-assessment results; and automation of Environmental Compliance and Restoration (ECR) project forms.

The NETS development contractor provides Help Desk support for NETS to respond to user problems, questions, and requests for changes and enhancement to the NETS application. NETS support documentation includes a user guide that explains how to operate the system for data entry, a data dictionary that provides definitions and required format for all data entry fields, and on-line help within the application that defines data fields and basic operations.

## Performance Measures

From the government-wide strategic plan, several performance measures have been established that will demonstrate progress in attaining the goals for waste prevention, recycling, and affirmative procurement for the Federal government. These are in addition to the waste diversion rate measurement as it pertains to the EPA National Recycling Goal. Federal agencies may adopt similar or identical measures to demonstrate their continued advances in waste prevention, recycling and affirmative procurement.

Here are four of the performance measures identified in the Strategic Plan:

1. All Federal agencies are expected to demonstrate significant increases in procurement of recycled content products from each preceding year through 2005.
2. All Federal agencies will establish and meet agency goals for affirmative procurement of recycled content products for all CPG items.
3. By the end of FY99, all Federal agencies will implement recycling programs at all Federal facilities. (Facilities should already have in place recycling programs for paper, cardboard, drink cans, and glass bottles.) This will now include programs to recycle, reuse, or refurbish pallets; collect toner cartridges for re-manufacturing; and reduce or recycle, as appropriate, batteries, scrap metal, and fluorescent lamps and ballasts. By the end of FY99, each Federal agency shall consider and implement five agency-wide waste prevention strategies, including two-sided copying and increased usage of electronic messaging.
4. Within 90 days after EPA issues the final guidance on environmentally preferable products and services, all Federal agencies should begin implementation of pilot projects to purchase and use environmentally preferable products.

## Department of Energy's Reporting System

DOE began its complex-wide reporting by distributing the report questions on computer diskettes to over 50 sites across the country. These floppy disks were mailed back and forth during the reporting process for Fiscal Years 1993 - 1996. Beginning with the Fiscal Year 1997 report, the World Wide Web is now the vehicle for DOE sites to report their activities regarding the Resource Conservation and Recovery Act, Section 6002 and Executive Order 13101. The Internet reporting site is password protected and user-friendly, offering such features as on-line guidance. Following completion of site reports, Federal staff, who are responsible for overseeing site activities, review and approve site reports before they are incorporated into the Department's database. All data are checked for quality assurance purposes before considered final. The data are compiled and site results are posted on DOE's E.O. 13101 web site <http://gerweb.bdm.com/cfdocs/aprs>.

Each year the reporting software is modified during the summer and made available on the Web for site reporting starting at the end of the fiscal year. Site reporting is completed by mid-December and the reporting page is closed so that the Departmental rollup report can be prepared early in the next calendar year. An improvement which is currently under consideration is leaving the reporting site open all year so that sites can enter their data as purchases are made at any time during the fiscal year.

DOE takes its reporting requirements very seriously and requires that buy-recycled provisions are included in its site operating contracts. The Department is working towards a goal of buying 100 percent EPA-designated items with recycled content.





# Part 7

## Applicability and Other Requirements

**Sec. 701. Contractor Applicability.** *Contracts that provide for contractor operation of a Government-owned or -leased facility and/or contracts that provide for contractor or other support services at Government-owned or -operated facilities awarded by executive agencies after the date of this order, shall include provisions that obligate the contractor to comply with the requirements of this order within the scope of its operations.*

### Contractor Operated Facilities

Many Federal agencies rely on private sector contractors to construct, manage, and/or operate their facilities. Sometimes contractors are even responsible for preparing technical specifications. Thus, contractors provide a direct link between the purchasing power of the Federal agency and the marketplace.

The Executive Order requires the Federal agency's procurement/contracting organization to include in all new contracts, provisions relating to the details of the agency's waste prevention, recycling, and affirmative procurement programs. Since contractors are purchasing goods and services on behalf of the Federal agency with appropriated funds, they need detailed instructions on the part they will play in implementing the agency's policies. For example, construction contractors need to be aware they must use cement or concrete containing fly ash or ground granulated blast furnace slag as well as building insulation containing recovered materials. Or, as another example of waste prevention, the contracting office should specify to the service contractors the need for copied pages to be printed on both sides if the documents are submitted during the performance of the contract. Contractors creating speci-

fications must be made aware of the agency's preference program to use products made with recovered materials when they meet the appropriate performance standards.

The agency contracting officer should establish the contractor's role during initial contact with the contractor and should reinforce these requirements, when appropriate, during subsequent meetings and correspondence. Older contracts may be modified periodically, opening the door to incorporating amendments related to this Executive Order.

### Contracts Workgroup

Under the White House Task Force on Recycling, a Work Group on Contracts and Specifications has been formed, composed of agency representatives from across Government including EPA and the DOI, to revise contracts to incorporate specific requirements for recycled content products, environmentally preferable products, biobased products, and waste minimization. The Work Group has decided to focus on nine types of contracts that are typically used throughout Government, including: construction/tenant build out; space lease; custodial services; landscaping/grounds keeping; operations and maintenance; cafeteria services; conference services; fleet management; and waste disposal. The Work Group will take well-developed, performance-based contracts as a starting point, and then add language to address these topics not only in the Contract Clauses (as required in the FAR), but also into the Scope of Work. The contracts also will be revised to make Environmental Preferability a part of the contract award process, by including preferability in the solicitation Section M - Evaluation Criteria, Section L -

Instructions to Bidders (wherein a bidder is directed to respond to the solicitation about the preferability of their proposal); and in Section B Line Item Pricing. The model contracts will be developed in collaboration with other interested stake holders, and then will be distributed via the World Wide Web.

**Sec. 702. Real Property Acquisition and Management.** *Within 90 days after the date of this order, and to the extent permitted by law and where economically feasible, executive agencies shall ensure compliance with the provisions of this order in the acquisition and management of Federally owned and leased space. The GSA and other executive agencies shall also include environmental and recycling provisions in the acquisition and management of all leased space and in the construction of new Federal buildings.*

## Real Property Acquisition and Management

GSA and other Executive agencies have been given the task of including environmental and recycling provisions when they acquire leased space and when they construct buildings. Shortly after the Executive Order was signed, GSA amended their standard Solicitation for Offers (SFO) to require lessors to provide a recycling program in leases for more than 10,000 square feet of space and where occupancies are greater than 100 people, or to provide a justification for not doing so.

Prior to the Executive Order, GSA revised its Facilities Standards for the Public Buildings Service, PBS-PQ 100.2 to reflect the EPA's designation of cement and concrete containing fly ash and building insulation. GSA will be updating the PBS-PQ 100.1 for additional items designated in EPA's May 1, 1995 CPG. In addition, GSA has embarked on a number of pilot projects. For example, GSA has formed a partnership with EPA to revise the SFO document for buildings leased for EPA occupancy. The revised SFO covers all aspects of structural, mechanical, and electrical engineering design, space management,

and recycling of construction and demolition debris, building maintenance and cleaning, and use of recycled-content products such as gypsum wallboard, ceramic tile, carpeting, and paint.

**Sec. 703. Retention of Funds.** *(a) The Administrator of General Services shall continue with the program that retains for the agencies the proceeds from the sale of materials recovered through recycling or waste prevention programs and specifying the eligibility requirements for the materials being recycled.*

*(b) Agencies in non-GSA managed facilities, to the extent permitted by law, should develop a plan to retain the proceeds from the sale of materials recovered through recycling or waste prevention programs.*

## Retention of Funds

Section 703 tasked GSA with continuing its programs that allow agencies to retain a share of the proceeds from the sale of materials recovered through recycling or waste prevention programs. This is a real "business opportunity" to help Federal agencies offset costs of operating a recycling program. The Department of Defense has had this authority for a decade, and it has helped increase participation in recycling, and therefore, its revenue.

The GSA proposal was enacted as a part of the general provisions in Public Law 103-329 (608 September 30, 1994). The public law stipulates recycling revenues may be used for:

Acquisition, waste prevention, and recycling programs as described in Executive Order 12873, including any programs using the proceeds already in place prior to the effective date of the Executive Order.

Other Federal agency environmental management programs including, but not limited to, those for developing and implementing hazardous waste management and pollution prevention.

Other employee programs as authorized by law

or as deemed appropriate by the head of the Federal agency (e.g., Federal building/agency day-care programs).

It should be noted the public law does not change the way revenues from precious metals or excessed property are handled. For buildings managed by GSA, recycling revenues will be distributed back to the agencies. The GSA recycling program will negotiate sales contracts, collect revenues, and return the income generated directly to the Executive agencies for their use. Additional guidance will be published by GSA, spelling out clearly the procedures for Federal agencies to receive proceeds from recycling efforts.

**Sec. 704. Model Facility Programs.** *Each executive agency shall establish a model demonstration program incorporating some or all of the following elements as appropriate. Agencies are encouraged to demonstrate and test new and innovative approaches such as incorporating environmentally preferable and bio-based products; increasing the quantity and types of products containing recovered materials; expanding collection programs; implementing source reduction programs; composting organic materials when feasible; and exploring public/private partnerships to develop markets for recovered materials.*

## Model Facility Programs

Each agency has been directed to establish a model facility demonstration program showcasing their efforts to create comprehensive waste prevention and recycling programs, emphasizing the procurement of recycled content and environmentally preferable products. Model facility demonstration programs also can include expanded collection programs, composting, and public-private partnerships to develop markets for recovered materials. The thinking behind this program is to have agencies share their ideas about making their facilities “green”, thereby facilitating the “bench marking” process among participants.

Many of these elements are featured in the proposed Federal Aviation Administration building in the Kansas metropolitan area, as well. The landscape specifications for the FAA building are also consistent with the guidelines and requirements of the Executive Memorandum on Environmentally and Economically Beneficial Landscape Practices on Federal Grounds. In addition to these pilot projects, GSA has established a goal to increase their use of recycled products in public buildings.

## Recycling

**HUD Headquarters Building in Washington DC**, has effectively responded to environmental and local landfill concerns through its waste reduction, recycling, and pollution prevention education programs. The Department has demonstrated a comprehensive office recycling program that captures a wide array of materials and utilizes an impressive variety of outreach activities. Approximately 40 percent of the waste generated within the Headquarters facility is captured for recycling. HUD also has one of the highest per capita recycling rates in the Capitol area at nearly one pound per person per day.



In its strategy to implement both RCRA and the Executive Order procurement requirements in building construction, renovation, and maintenance, EPA has drafted a Green Buildings Vision and Policy Statement Environmental Procurement Strategy, EPA's Action Plan for Implementing Executive Order 12873 on Federal Acquisition, Recycling, and Waste Prevention; EPA 200- R-95-001, August 1995). This statement is intended to serve as a guide for EPA as well as for other agencies and stresses a holistic, systems approach to building design, construction, renovation, and use. In their policy statement, EPA recommends such Green Building features as:

- Selecting locations and programs which optimize use of existing infrastructure and transportation options, including the use of alternative work modes such as telecommuting and teleconferencing;
- Use of recycled content and environmentally preferable construction materials and furnishings, consistent with EPA's Comprehensive Procurement Guidelines;
- Focus on energy conservation, renewable energy, water conservation, and materials waste minimization, throughout the building's life cycle, from design through demolition or reuse;

### Waste Prevention and Retention of Savings

From procurement through disposal, the **Marine Corps Recruit Depot, Parris Island, SC**, population is dedicated to a comprehensive waste prevention program. In 1997, 1,665 tons of solid waste were recycled, resulting in a 44 percent reduction in the non-hazardous waste stream and an 26 percent reduction in the hazardous waste stream. The Depot exhibits a strong commitment to a comprehensive recycling program, which includes the recovery of grease, tires, oil and oil filters, paint, aluminum cans, scrap metal, plastic, glass, office paper, newspaper, cardboard, shell casings, and grenade fuses. Parris Island's affirmative procurement policy includes the purchase of recycled content paper products and retread tires. As a result of Parris Island's waste prevention efforts from 1995-1997, the base operating budget was increased by \$485,000. This allowed for improvements in family housing, free admission to Depot pools, and other added benefits.



### Waste Prevention Through Acquisition Oversight

The **U.S. Army Ordnance Center and School, Aberdeen Proving Ground, MD (USAOC&S)** has successfully instilled pollution prevention ideals in all activities and at all levels through educational outreach, affirmative procurement, and the modification of toxic cleaning processes. By implementing environmentally preferable product substitution and process modification, the generation of hazardous waste - particularly with regard to coatings, cleaning supplies, solvents, and rechargeable batteries - was reduced and now saves up to \$200,000 per year. All hazardous material requisitions are screened by staff in the USAOC&S Environmental Office to ensure compliance with state and Federal regulations, such as E.O. 12856 and 13101. If a request does not pass the screening process, an acceptable environmentally preferred alternative is sought out, tested, and procured. In addition, USAOC&S has conducted pollution prevention training classes for hundreds of military and civilian employees - as well as members of the community - in order that they might recognize and prevent sources of pollution in the workplace.





- Design building envelope with energy efficiency in mind;
- Use of materials and design strategies to achieve optimal indoor environmental quality, particularly including light and air, to maximize health and productivity;
- Design of operating systems and practices to support an integrated waste management (waste prevention and recycling) system;
- Planning for recycling building materials during maintenance, redesign, and demolition; and

- Conservation of water through the design, building construction, and building operations.

The EPA has also established a number of “Green Building Demonstration Projects.” Most notably is the completion of the Christopher Columbus Center in Baltimore, MD, which received an EPA grant to incorporate “green” technologies and principles. These include: “green” lighting systems; insulated glazing; energy-efficient heating, air conditioning, and exhaust systems; utilizing steam from a local plant fired with domestic solid waste for space heating, hot water, and laboratory sterilization.

### **Pollution Prevention Through Recycling and Inventory Control**

Like USAOC&S, the **Coast Guard Air Station Cape Cod (ASCC)** pollution prevention program uses engineering controls and best management practices to incorporate the spirit of pollution prevention into everyday operations. Source reduction, product substitution, recycling initiatives, and an aggressive inventory control system have reduced ASCC’s hazardous waste by 62 percent and aircraft maintenance hazardous materials by 77 percent. ASCC initiated a voluntary curbside recycling program for its military housing community. During 1995, it redeemed more than 280,000 plastic, aluminum, and glass beverage containers. ASCC uses disposal by combustion only when wastes cannot be reduced or recycled. The combination of recycling efforts and improved inventory controls reduced solid waste generation by 117 tons from 1995 to 1996. ASCC also has made great strides in the procurement of recycled content products, including the use of recycled asphalt concrete overlays on asphalt roads and parking lots.



### **Designing Green in Partnership with GSA Through Building “Specs”**

GSA is working with EPA to incorporate environmental and recycling provisions for the proposed new **EPA Regional Headquarters building in Kansas City, Kansas**. In the requested building design, a “green rider” was incorporated into the building specifications. Included in the specifications are such features as: high efficiency heating and air conditioning equipment with automated controls; energy conserving lighting (offerors are directed towards EPA’s Green Lights Program); endorsement of day lighting; and low-flow plumbing fixtures among others.





The EPA Region III Environmental Science Center at Ft. Meade, MD, has been designated as another Green Building pilot project. The following green principles have been incorporated: reusing the existing structure which was a housing barracks already standing on the site; using recycled materials, such as cement containing fly ash and building insulation containing recovered materials; selecting construction materials such as glass, aluminum, and masonry with the express intent of recycling them at the end of the building's service life; ensuring a well-insulated building exterior; maximizing daylight in laboratory rooms; installing high-efficiency heating and air conditioning systems with automated controls, including piloting a one megawatt fuel cell at the site; installing green lighting; using modular designs allowing efficient space reconfigurations when functions and needs change; and landscaping designed to reduce watering and maintenance.

EPA is also attempting to establish an integrated environmental facility management program within its facilities. The requirements of the various Executive orders have typically been implemented as stand-alone programs. By approaching the management of facilities within a holistic, systems approach, the environmental and economic benefits of implementing the requirements of E.O. 13101 and other Executive order requirements on energy and water conservation, refrigerant management, and pollution prevention programs can be more effective.

**Sec. 705. Recycling Programs.** (a)(1) *Each executive agency that has not already done so shall initiate a program to promote cost-effective waste prevention and recycling of reusable materials in all of its facilities. The recycling programs implemented pursuant to this section must be compatible with applicable State and local recycling requirements.*

(2) *Agencies shall designate a recycling coordinator for each facility or installation. The recycling coordinator shall implement or maintain waste prevention and recycling programs in the agencies' action plans.*

(b) *Executive agencies shall also consider cooperative ventures with State and local governments to promote recycling and waste reduction in the community.*

## Recycling Programs

Under RCRA sections 1008 and 6004, all Federal agencies generating solid waste are required to take action to recover it. (Goals and reporting requirements for recycling were discussed in part 6.) EPA guidelines for source separation of recoverable materials are found in 40 CFR part 246. Among other things, EPA requires that:

- High-grade paper generated by office facilities of over 100 office workers shall be separated at the source of generation, separately collected, and sold for the purpose of recycling (§246.200-1).
- Any commercial establishment generating 10 or more tons of waste corrugated containers per month shall separately collect and sell this material for the purpose of recycling (§246.202-1).

The recycling requirement is not only a legal imperative, but an economic one as well. Nearly 80 percent of the average Federal office waste stream consists of paper. According to EPA, in 1996, paper represented 38 percent (by weight) of the municipal waste stream. While 40 percent of this paper was recovered, over 47 millions tons were sent to landfills or incinerators. Similarly, yard trimmings, which are generated at many Federal installations, represented 13 percent (by weight) of the municipal waste stream in 1996; 17 million tons of this material were sent to landfills. Considering the national average landfill "tipping fee" was \$33/ton in 1998, the economic imperative to recycle these materials is clear. Because agencies are now allowed to retain the revenue from the sale of their collected materials, there is an additional incentive to develop a recycling program or upgrade an existing program.



## Closing the Circle Award Winner

The **Tennessee Valley Authority's Facilities Services Environmental Program** is a reflection of their commitment to preserving and enhancing the environment for future generations and providing a healthy workplace for its employees. TVA has embarked on an effort to demonstrate environmental responsibility through waste reduction, environmentally conscious building renovation, value focused environmental compliance, and energy reduction. This focus has resulted in an 81.5 percent reduction in office waste sent to landfills; purchase of \$8M of sustainable and recycled content materials, 5,008 cubic meters of renovation waste diverted from landfills and the reduction of energy use by 22.7 percent.

In Fiscal Year 1994, TVA initiated a Facilities Services' Environmental Program, detailing its comprehensive Environmental Management Program. This program details various environmental regulations applicable to the various TVA facilities and activities, allowing managers to see what needs to be done, where, and when. It also: (1) provides guidance to managers for compliance in the areas of clean air, clean water, hazardous materials/waste, training, and emergency response; (2) identifies responsible individuals as points of contact in business units and workgroups to increase employee awareness and to focus on going beyond environmental "compliance"; and (3) establishes a self-audit process.

For solid waste minimization, the TVA program includes centrally located collection centers for recyclable materials (paper, glass, aluminum, magazines, cardboard, and plastic), replacing work space wastebaskets with "ReBox" containers at each employee's desk, use of reusable coffee mugs at vending machines and water fountains, and using hand dryers instead of paper towels.

In the interest of energy reduction, TVA exceeded the President's goals for Government buildings and experienced a dramatic reduction in energy consumption. Various means were used to achieve this goal, including high efficiency lamps and electronic ballasts, lighting timer control devices and programmable thermostats. An energy awareness campaign also helped by raising employee consciousness.

Sustainable or "Green" Architecture translates to designing buildings that work with the natural environment, and making use of natural, non-toxic, and low maintenance materials requiring less energy to create and operate. The TVA Sustainable Architecture team analyzed 30 building materials, allowing those managing renovations to choose appropriate materials.

Affirmative procurement efforts have also been successful. TVA, joined the National Recycling Coalition's Buy Recycled Business Alliance of 600 companies and exceeded its FY 94 and FY 95 affirmative procurement goals in recycled content and sustainable product purchases.

A new initiative for TVA is an agreement with a carpet manufacturer to buy recycled carpet and ensure it is recycled when replaced. TVA is purchasing 1.7 million square feet of carpet with 100% recycled content backing. The manufacturer agreed to recycle our existing carpet diverting it from the landfills.

TVA has also supported Partners-In-Education (PIE), donating carpet, telephone books, topsoil, furniture, typewriters, calculators, lightbulbs, etc. to PIE. It has made a commitment to local communities at several locations to be responsible neighbors and reduce hazardous waste generation and use non-ozone depleting refrigerants. Its environmental program puts TVA in a leadership position and is a model to emulate.

**Source Separation: The First Step to Successful Recycling** — Source separation involves sorting recoverable materials at their point of generation by type and/or grade. The primary reason to source separate materials is to ensure their quality and homogeneity and hence increase their value, prior to collection and subsequent use. During separation, care must be taken to minimize or avoid contamination. Paper contamination by “prohibited” materials (e.g., yellow sticky pads, carbon paper, etc.) beyond a predetermined threshold percentage will cause the lot to be rejected. In contrast, other materials called “out throws”, although dissimilar to the grade being sorted, will cause the lot to be “downgraded” but not rejected outright (high grade white paper mixed with “colored” or groundwood paper). Regardless, the value of some recyclables is significantly diminished when they are mixed with other materials. As the above TVA example shows, source separation doesn’t have to be either burdensome or expensive. Employees will do the job for the agency with the proper training, motivation, infrastructure, and LEADERSHIP.

**Paper** — Because of the large number of paper grades used in an office environment, educating employees about source separating paper is especially important. It is important to know different grades of paper lend themselves to making different types of new products. Paper grades cited in the latest GSA recycling contracts in the Washington, DC metropolitan area (National Capital Region), for example, include Grade 1 (sorted white ledger), Grade 2 (mixed paper), Grade 3 (newspaper), Grade 4 (cardboard)<sup>1</sup>, Grade 5 (sorted office paper), and Grade 6 (mixed paper including telephone directories). Higher grade paper (Grade 1) is generally worth more than lower grade paper to the recycling paper mills. However, the grades most marketable in a specific area will depend on local and export markets. It is equally important

to work with local paper dealers to determine what grades can be collected and sold profitably in the area where an agency is located.

When the local market or policy dictates, paper grades (and other material types as well) can be very economically separated at the source.

However, it may still be more cost effective to do so because sorted paper commands a higher price. Conversely, if local materials dealers only accept certain grades of paper, agencies will have to source separate. When designing their office recycling program, agencies will have to take into consideration the local demand for the recyclables they will be collecting and determine the extent to which their program will source separate.

Another important consideration is the “cleanliness” (i.e., absence of contaminants and/or out throws) of recyclable paper. The “cleanliness” can dramatically alter the price per ton an agency receives. It is typically set as a maximum percentage for that locale. Foreign objects, such as food waste, contaminate the recycling process and create process difficulties at a paper mill, resulting in lower prices or outright paper rejection. It is essential that contaminants be kept out of recycling containers. Some agencies have instituted the concept of “wet containers” to help their employees understand and differentiate between recyclable materials and non-recyclable materials. Agencies should check with their paper dealer to determine what items are considered contaminants in their program.

**Other Recyclable Materials** — Both because paper comprises the largest component of most Federal office waste streams, and because office paper and corrugated board are mandatory items in EPA regulations, it is usually the first problem to be tackled in an office recycling program. Depending on an agency’s waste generating characteristics, however, additional materials may be included in its recycling program.

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<sup>1</sup>The paper industry uses the term “corrugated” rather than cardboard. The latter term is too general a term to be used to specify paper grades.

Other papers, such as newspaper, as well as metal, glass, and plastic beverage containers, merit consideration for inclusion in office recycling programs, if they are present in the office waste stream in sufficient quantities to justify separate collection.

Agencies also should incorporate efforts to recycle, reuse, or refurbish pallets; collect toner cartridges for remanufacturing; and reduce or recycle batteries, scrap metal, and fluorescent lamps and ballasts.

**Paper Facts<sup>2</sup>** — Recovered paper now supplies 1/3 of the fiber used in U.S. paper and paperboard mills. Every day, U.S. paper manufacturers recycle enough paper to fill a 15-mile-long train of boxcars.

**Recycling Rates Increase** — In 1998, more than 45 million tons of paper and paperboard were recovered for recycling in the U.S. This is nearly double the quantity recovered a decade earlier (24 million tons). This averages out to 336 pounds of paper recovered for each American. Not coincidentally, the recycling rate also increased, from just over 28 percent in 1986, to nearly 45 percent in 1998.

**Less Paper Landfilled** — About 10 million fewer tons of paper were landfilled in 1998 (36.6 million tons) than in 1986 (46.2 million tons). This is especially noteworthy since paper consumption increased during this period.

**Office Paper Takes Off** — Between 1990 and 1998, the recovery rate for office paper more than doubled, from 19.9 percent to 41.8 percent. More than 3.8 million tons were recovered in 1998.

**Recovery of Printing Writing Papers Grows** — In 1998, 11 million tons were recovered, compared to 5 million in 1986. The recovery rate improved from 23 percent to 35.1 percent during that time.

**Old Paper Becomes New Again** — Recovered printing /writing paper was used to produce new printing/writing paper (18 percent), tissue (24 percent) paperboard (24 percent), and other paper products (7 percent). About 22 percent was exported.

**Corrugated is King** — Corrugated was recovered at the rate of 75 percent in 1998. Over 30.9 million tons were recovered. The recovered material was recycled into container board (68.3 percent), paperboard (15.9 percent), and other products (4.7 percent). About 11 percent was exported.

## How to Establish a Program

Federal agencies operating in GSA-owned or leased space have the opportunity to work with their building services manager to develop waste reduction and recycling programs best suiting their location and current market conditions. GSA has identified the following major steps in implementing a recycling program:

**Marketing** - Contracts to sell the recyclable material are identified and secured. A recycling program is marketed to client agencies. Tenants are encouraged to participate, given information

about program achievements, and asked for ideas on improving or publicizing the program.

**Collection** - Recyclable materials are separated, gathered, and stored for transport.

**Procurement** - Contracts to buy supplies made from recycled materials are identified and secured. Federal participants in the recycling program will be kept abreast of available recycled products through GSA's various supply publications (e.g., GSA Supply Catalog, Environmental Products Guide, Federal Supply and New Item Introductory Schedules).

<sup>2</sup>These paper facts are from the 1998 Recovered Paper Statistical Highlights, found on the American Forest & Paper Association web site, [www.afandpa.org/Recycling/](http://www.afandpa.org/Recycling/).



**Monitoring and Evaluation** - Each facet of the program is surveyed, measured, and then rated for efficiency and progress, enabling participants to see program strengths, accomplishments, and weaknesses.

Agencies should carefully watch developments in the volatile recyclables markets. Privately owned recyclables publications, such as The Yellow Sheet (Note: the actual title: The Official Board Markets) can provide helpful market information on price movements and regional differences in the various grades of paper. To order the Yellow Sheet, contact Subscription Customer Service at (218) 723-9477. You may want to consider whether your department should subscribe to determine whether price data as reported can be disseminated to departmental elements.

**Sec. 706. Review of Implementation.** *The President's Council on Integrity and Efficiency shall request that the Inspectors General periodically review agencies' implementation of this order.*

## **Review of Implementation**

The President's Council on Integrity and Efficiency (PCIE) is an interagency committee charged with promoting integrity and effectiveness in Federal programs. The PCIE is chaired by the Deputy Director for Management and

Budget (OMB) and comprised principally of Presidentially-appointed Inspector Generals (IGs). The PCIE focuses on two primary objectives: mounting collaborative efforts to address integrity, economy and effectiveness issues that transcend individual Federal agencies and increasing professionalism and effectiveness of IG personnel throughout the Government. The Chair of the White House Task Force on Waste Prevention and Recycling will address the PCIE on E.O. 13101 and its various requirements requesting the PCIE to have the IGs assist agencies in the implementation of E.O. 13101.

The IG can help promote economy, effectiveness and efficiency within an agency. The IG can work together with the Agency Environmental Executive for positive change and continuous improvements through a spirit of cooperation and openness. The IG can analyze waste prevention, recycling, and green procurement programs in the agency, identify any problems, and recommend solutions and improvements.

Several agency IGs have reviewed their agencies' recycling and waste prevention programs. For example, the National Aeronautics and Space Administration and General Services Administration IGs reviewed some of their centers' recycling programs for compliance with E.O. 12873 and suggested improvements that could be made.





# Part 8

## Awareness

*Sec. 801. Training. (a) Within 180 days of the date of this order, the FEE and OFPP should evaluate the training courses provided by the Federal Acquisition Institute and the Defense Acquisition University and recommend any appropriate curriculum changes to ensure that procurement officials are aware of the requirements of this order.*

*(b) Executive agencies shall provide training to program management and requesting activities as needed to ensure awareness of the requirements of this order.*

### Training

Awareness of the requirements of Executive Order 13101 and the “how to” of “green” procurement is the key to the order’s successful implementation. Contracting and program personnel must be provided with knowledge and resources to ensure that purchases of products and services are consistent with the requirements of this order. Knowledge, will be gained through courses offered by Federal acquisition institutions; secondly, by the training facilities contracted by individual agencies; and thirdly, from the internal training programs developed by agencies. Resources, will be obtained through published documents and interactive tools developed specifically to aid agencies in the “green” procurement process. Several approaches are being used to provide training.

One training approach is the White House Task Force on Greening the Government through Waste Prevention and Recycling (Task Force) working with the Defense Acquisition University (DAU) to develop or modify courses to reflect the objectives of E.O. 13101. The DAU is the Department of Defense (DoD) organization that provides training and education for the DoD acquisition workforce. The Task Force and DAU reviewed, analyzed, and evaluated the training courses and submitted recommendations for those needing modifications. Recommendations for appropriate curriculum changes were made in the form of learning objectives. The learning objectives, a description of what the student should accomplish after instruction, were based on specific sections of the executive order. Some sections of the order and the associated learning objectives are shown on the next page.

As part of implementing the DAU training program, The White House Task Force on Waste Prevention and Recycling, in conjunction with DAU, conducted a training workshop on the components of E.O. 13101. The workshop was especially designed for the DAU course directors, members of the faculty and DoD functional personnel. The Workshop provided leaders of the university with an understanding of the E.O. and its application within the acquisition process. The “train the trainers” workshop was a giant step towards guiding the Federal governments’s acquisition and procurement process in a greener direction.

## **PART 4 - ACQUISITION PLANNING, AFFIRMATIVE PROCUREMENT PROGRAMS, AND FEDERAL COMPLIANCE**

### **Learning Objective # 1**

Given a set of requirements for the procurement of a product and/or service, the student shall conduct acquisition planning by developing the plan, specifications, and work statement using the following environmental factors for consideration:

- the elimination of virgin material;
- the use of biobased products;
- the use of recovered material;
- the reuse of product;
- life cycle cost;
- recyclability;
- use of environmentally preferable products;
- waste prevention; and
- ultimate disposal.

### **Learning Objective # 2:**

Given simulated acquisition plans, the student shall apply the elements needed to establish and implement an affirmative procurement program in accordance with Section 402 of Executive Order 13101.

## **PART 5- STANDARDS, SPECIFICATIONS, AND DESIGNATION OF ITEMS**

### **Learning Objective # 1:**

Given a product and/or service, the student shall develop standards and specifications using recovered materials and/or environmentally preferable products.

## **PART 7- APPLICABILITY AND OTHER REQUIREMENTS**

### **Learning Objective # 1:**

Given simulated requirements for leased space, to include contractor support for assumed services, the student shall select the applicable requirements of Executive Order 13101 in the development of standards and specifications.

### **Learning Objective # 2:**

Given the specifications for the acquisition and/or management of a leased space, (or the construction of a new building) justify the inclusion for environmental and recycling provisions.

The learning objectives will formulate the foundation from which lessons will be developed for incorporation into existing courses. As information related to specific courses becomes available, it will be posted on the web site of the Task Force (<http://www.ofee.gov>).

A second training approach is the Task Force developing a comprehensive presentation on green purchasing especially geared towards procurement and contracting personnel. The presentation focuses on the national policy of buying green and addresses such issues as cost effectiveness, mission performance, and availability. The various components of the Federal Acquisition Regulation that pertain to green purchasing are emphasized. Among these are: acquisition planning, affirmative procurement programs, needs and determinations, and relevant clauses. Procurement and contracting personnel are provided with practical exercises and best practices on recycled content products and environmentally preferable products and services. Examples of how green purchasing can be incorporated into the contracting officer's daily procurement activities are expanded on. Copies of the presentation on green purchasing can be obtained by contacting the Federal Environmental Executive (202) 564-1297. Training on green purchasing is provided by the Task Force on a regular basis to contracting officers and contract specialists from the DoD, the services, Department of Energy (DOE), Department of Health and Human Services (HHS), and the Department of Veterans Affairs (VA). The Task Force also educates and trains DoD service contracting and acquisition personnel at the DoD Contracting 301 Course on a continuing basis.

A third training approach is the Task Force working with the Federal Acquisition Institute (FAI) to create an Internet-based course on E.O.

13101 that would be free and user friendly for contracting and program personnel. In view of tight travel budgets, this new type of training encourages self-development in lieu of reliance on traditional classroom training. The course will contain practical exercises and a certificate will be awarded upon completion of the course requirements. The course when finalized will be offered through the FAI web site.

Yet another approach being utilized involves individual agencies using training to educate the relevant program and acquisition personnel such as credit card holders, program managers, project managers, and contracting officers about the requirements of E.O. 13101. This training consists of agency-sponsored workshops, electronic training, manuals, and contracting officer warrant maintenance programs. Many agencies are putting such training into their agency strategic plans to implement E.O. 13101.

The Task Force has developed various additional non-training initiatives to promote awareness and outreach in regard to waste prevention, recycling, and the acquisition of recycled content and environmentally preferable products and services. These initiatives include:

The Federal Environmental Executive convenes monthly meetings of representatives of Federal agencies, known as the Executive Order Interagency Advisory Group (EOIAG), to discuss issues and share information pertaining to implementation of the E.O..

For instance, the Department of Veterans Affairs (VA) is providing training on green purchasing in their seminars for contracting officers and heads of contracting activities throughout the country; VA includes training on green purchasing and E.O. 13101. At VA Logistics Management Conferences/Seminars for Program Managers and Materials Managers, there is training on E.O. 13101, specifications and requirements, and compliance inspections.

Some meetings are dedicated to specific components of the E.O., i.e., establishment of goals, discussion of biobased products, and development of agency award programs.

The FEE web site, [www.ofee.gov](http://www.ofee.gov), has information pertinent to implementation of E.O. 13101, including the Government-wide Strategic Plan, the Recycling for the Future: Consider the Benefits publication, the Recycling for the Future: It's Everybody's Business publication; and agency success stories. This web site has a link to a large number of agency environmental and acquisition sites that provide information on E.O. 13101 topics.

The Task Force realizes that initiation of strong relationships and partnering arrangements with other government agencies will facilitate and maximize the implementation of the Executive Order and promote outreach efforts and has aggressively sought out such partnering arrangements.

The Task Force is partnering with the Committee for Purchases From People Who are Blind or Severely Disabled, a small independent Federal agency. The Committee administers the Javits-Wagner-O'Day (JWOD) Act. The JWOD Program is a procurement program that generates jobs for individuals who have disabilities. Two important procurement programs are being promoted at the same time: buying green and buying products from nonprofit organizations that employ people with disabilities. The JWOD Program now carries many recycled products. For example, Base Supply Centers operated under the auspices of the JWOD Program are located at various military installations. These Supply Centers will maintain only copier paper that complies with E.O. 13101. Personnel who use those Supply Centers will purchase copier paper that complies with E.O. 13101 while at the same time purchasing from those individuals who have disabilities. JWOD is also actively seeking to add new green products to its inventory of items manufactured.

The Task Force is partnering with Electronic Commerce Resource Centers (ECRCs), a DoD initiative, to examine additional ways to achieve implementation of the Executive Order. The ECRCs train thousands of companies; the Task Force will provide information on E.O. 13101 and other environmental training material to the ECRCs for inclusion into their training. This will provide companies/suppliers with expanded business opportunities.

The Task Force is working with the Small Business Administration (SBA) to provide information on E.O. 13101 to small businesses. Small Business Development Centers (SBDCs) are providing up-to-date publications and training materials on relevant components of the E.O. to small businesses through their extensive network of locations. The Task Force is working on the development of an electronic presentation on E.O. 13101 that will be targeted especially for small businesses. The Task Force is also coordinating with agency Office of Small and Disadvantaged Business Utilization Directors (OSDBU) on efforts that can be beneficial to both small businesses and the acquisition of recycled content and environmentally preferable products and services.

***Sec. 802. Internal Agency Awards Programs.***  
*Each agency shall develop an internal agency-wide awards program, as appropriate, to reward its most innovative environmental programs. Among others, winners of agency-wide awards will be eligible for the White House Awards Program.*

## **Internal Agency Awards Programs**

Although each agency develops their own environmental recognition program, generally the categories are similar to those of the White House Closing the Circle Awards. Several agencies have added an environmental category to department wide-awards from the Office of the Secretary.

**Sec. 803. White House Awards Program.** *A Government-wide award will be presented annually by the White House to the best, most innovative programs implementing the objectives of this order to give greater visibility to these efforts so that they can be incorporated Government-wide. The White House Awards Program will be administered jointly by the FEE and the CEQ.*

## White House Awards Program

The White House Closing the Circle Awards program was developed to recognize federal employees and their facilities for efforts which resulted in significant contributions to or have made a significant impact on the environment in specific categories under the Executive Order 13101. Every year this program continues to seek and nationally recognize great affirmative procurement, waste reduction and recycling success stories that can set the example for other federal facilities to follow. The existing categories are:

- Waste Prevention
- Recycling
- Affirmative Procurement
- Environmental Preferability
- Model Facility Demonstrations
- Sowing the Seeds for Change

Each category recognizes efforts made by either an individual federal employee (“individual award”) or teams/groups of federal employees (including teams made of federal and contract employees) at government facilities (“team/project award”). Each category will also recognize “Military” and “Civilian” nominations with separate awards. The box below describes the award categories, and while not all inclusive, it

will help to understand the criteria used to judge and evaluate the nominations for awards.

Beginning in calendar year 2000, a new award category, “Outreach” will recognize those individual and/or team activities designed to get more people to better understand about the big environmental and economic benefits resulting from recycling and buying recycled content products.

Individual awards will also be presented under Executive Order 12856, Federal Compliance With Right-to-Know Laws and Pollution Prevention Requirements. President Clinton signed Executive Order 12856 pledging the Federal Government to protect the environment by preventing pollution at the source. The Executive Order required EPA to establish the “Federal Government Environmental Challenge Program” including the Environmental Challenge Award to recognize individual Federal employees who display outstanding leadership in pollution prevention. The award recognizes individuals that have demonstrated outstanding leadership in implementing the pollution prevention provisions of Executive Order 12856. These awards have been combined with the E.O. 13101 Closing the Circle Award programs.

Also beginning in calendar year 2000, federal agencies will implement within their own in-house environmental recognition programs, categories consistent with the White House Closing the Circle Awards. These agency-wide winners will then be eligible to compete for the annual White House Program.

Please see Appendix N for a complete list of the Closing The Circle Award winners from 1995-1999. Additional information on the nomination process and application deadline can be found on our Web site: [www.ofee.gov](http://www.ofee.gov).





## Closing the Circle Award Categories

**Waste Prevention** — This category recognizes reductions in the generation of wastes from a Federal facility through any change in the design, manufacturing, or use of materials or products; and/or the amount of toxicity in waste materials before recycling, treatment or disposal.

**Recycling** — This category recognizes outstanding activities, including outreach, collection, separation and processing by which products or other materials are recovered from the waste stream for use in the manufacture of new products (other than fuel for producing heat or power by combustion) at a Federal site, facility, or operation.

**“Think Globally, Act Locally”** — Did you ever wonder how one individual could make an environmental impact on this big earth? Mrs. Helen V. Walker of the 11th Civil Engineer Squadron has taken “act locally” to new heights. While maintaining a full-time job as an Engineering Technician, she established and spearheaded all aspects of the Bolling Air Force Base, Washington, DC recycling programs including solid waste reduction and reporting, composting, affirmative procurement reporting, environmental compliance, and education. Her goals were to create positive attitudes by changing behavior patterns towards resource recovery for future generations. A 1999 Closing the Circle Award Winner!

**Affirmative Procurement** — This category recognizes the most effective and innovative programs implemented for the purchase and use of products containing recovered materials at a Federal site, facility, or operation. This award focuses on, but is not limited to, those products designated in the Environmental Protection Agency Comprehensive Procurement Guidelines (CPG).

**Environmental Preferability** — This category recognizes the best examples of acquiring, using, or validating products or services that have a reduced impact on human health and the environment when compared with competing products or services that serve the same purpose; an outstanding improvement to a process that resulted in significant monetary savings and benefit to the environment; product testing that led to the approval and use of environmentally preferable or sound products and services.

**Model Facility** — This award recognizes achievements by an individual or team/group for outstanding contribution to waste prevention, recycling and affirmative procurement through its leadership, investment in resources and change in culture.

Notwithstanding the name “Model Facility,” an individual who virtually singlehandedly designed and executed the program submitted can be nominated in this category.

**Sowing the Seeds for Change** — This category should be considered when an individual or team/group leads an activity, or conducts an infrastructure or policy change that advances the objectives of the E.O., but does not have a direct impact on the waste being reduced, recycling effort developed or affirmative procurement practice implemented.

**Outreach** — This category recognizes those individuals or teams/groups who have implemented outreach programs/projects or educational efforts designed to promote the goals and objectives of E.O. 13101. These programs successfully acquaint the federal community and the public sector of the environmental and economic benefits of recycling. In doing so, the Program provides tangible benefits to the recycling and “buy recycled” efforts at the facility and/or local community.

**Executive Order 12856** — This award recognizes individuals that have demonstrated outstanding leadership in implementing the pollution prevention provisions of Executive Order 12856. The Federal Environmental Executive is pleased to continue incorporating this Environmental Challenge Award into the Closing the Circle Award Program.



## Other Awareness Initiatives

**Paper** — American Paper and Forest Association (AF&PA) holds an annual “Best Paper Recycling Award”. This national awards program recognizes the best recycling programs in America with cash prizes, a recognition certificate, and a hometown awards ceremony. Finalists receive a plaque recognizing their contribution to paper recovery and recycling. There are several criteria measured when selecting the winners and AF&PA is especially interested in paper collection programs that emphasize improving recovered paper quality. New in 1999 was a federal government category open to any U.S. federal facility. The first federal facility winning this award was: Fort Hood Recycle, Fort Hood, TX. The finalist facility was U.S. Postal Service, in Lansing, MI.

**America Recycles Day** — The Office of the Federal Environmental Executive, in conjunction with several federal agencies, actively participates in the annual America Recycles Day (ARD) celebration every November 15th. ARD is a unique public/private partnership bringing together government officials, environmental organizations and manufacturing industries with a shared objective of increasing recycling and the purchase of recycled content products. Thousands of events are celebrated across the United States designed to promote the social, environmental and economic benefits of recycling. For more information about America Recycles Day, please see Appendix J.

**NRC-FEE Confluence** — The National Recycling Coalition (NRC) hosts the annual National Recycling Congress. The annual Congress offers recyclers an opportunity for education, networking with vendors, government officials and company representatives, and entertainment. Attendees share innovative ideas, products, services and practices within the industry. The annual Congress offers plenary and concurrent educational sessions, an awards program, facility tours, and a large exhibit program focused on recycling and waste prevention. Exhibitors include representatives of recycling companies, solid waste companies, computer vendors, government agencies, non-profits, consulting firms, and specialty houses.

Since 1996, the Office of the Federal Environmental Executive has provided educational sessions for Federal attendees, focused on implementation of E.O. 13101 and its predecessor, E.O. 12873. DoD also offers three educational sessions focused on recycling issues pertinent to DoD installations - and which often are pertinent to civilian Federal agencies as well. Federal attendees thus have the opportunity to learn about waste prevention, recycling, affirmative procurement, and other market development strategies by attending sessions offered by OFEE, NRC, or the Department of Defense. The Task Force on Recycling, DoD, GSA, USPS, USDA, EPA, and other Federal agencies also exhibit during the National Recycling Congress, presenting Federal attendees with additional opportunities to learn from one another.



# Appendix A

September 14, 1998

EXECUTIVE ORDER

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## GREENING THE GOVERNMENT THROUGH WASTE PREVENTION, RECYCLING, AND FEDERAL ACQUISITION

By the authority vested in me as President by the Constitution and the laws of the United States of America, including the Solid Waste Disposal Act, Public Law 89-272, 79 Stat. 997, as amended by the Resource Conservation and Recovery Act (RCRA), Public Law 94-580, 90 Stat. 2795, as amended (42 U.S.C. 6901-6907), section 301 of title 3, United States Code, and in order to improve the Federal Government's use of recycled products and environmentally preferable products and services, it is hereby ordered as follows:

### PART 1 - PREAMBLE

*Section 101.* Consistent with the demands of efficiency and cost effectiveness, the head of each Executive agency shall incorporate waste prevention and recycling in the agency's daily operations and work to increase and expand markets for recovered materials through greater Federal Government preference and demand for such products. It is the national policy to prefer pollution prevention, whenever feasible. Pollution that cannot be prevented should be recycled; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner. Disposal should be employed only as a last resort.

*Sec. 102.* Consistent with policies established by the Office of Federal Procurement Policy ("OFPP") Policy Letter 92-4, agencies shall comply with executive branch policies for the acquisition and use of environmentally preferable products and services and implement cost-effective procurement preference programs favoring the purchase of these products and services.

*Sec. 103.* This order creates a Steering Committee, a Federal Environmental Executive ("FEE"), and a Task Force, and establishes Agency Environmental Executive ("AEE") positions within each agency, to be responsible for ensuring the implementation of this order. The FEE, AEE's, and members of the Steering Committee and Task Force shall be full-time Federal Government employees.

### PART 2 - DEFINITIONS

For purposes of this order:

*Sec. 201.* "Environmentally preferable" means products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.

**Sec. 202.** “Executive agency” or “agency” means an Executive agency as defined in 5 U.S.C. 105. For the purpose of this order, military departments, as defined in 5 U.S.C. 102, are covered under the auspices of the Department of Defense.

**Sec. 203.** “Postconsumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. “Postconsumer material” is a part of the broader category of “recovered material.”

**Sec. 204.** “Acquisition” means the acquiring by contract with appropriated funds for supplies or services (including construction) by and for the use of the Federal Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated. Acquisition begins at the point when agency needs are established and includes the description of requirements to satisfy agency needs, solicitation and selection of sources, award of contracts, contract financing, contract performance, contract administration, and those technical and management functions directly related to the process of fulfilling agency needs by contract.

**Sec. 205.** “Recovered materials” means waste materials and by-products that have been recovered or diverted from solid waste, but such term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process (42 U.S.C. 6903 (19)).

**Sec. 206.** “Recyclability” means the ability of a product or material to be recovered from, or otherwise diverted from, the solid waste stream for the purpose of recycling.

**Sec. 207.** “Recycling” means the series of activities, including collection, separation, and processing, by which products or other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacture of new products other than fuel for producing heat or power by combustion.

**Sec. 208.** “Waste prevention” means any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.

**Sec. 209.** “Waste reduction” means preventing or decreasing the amount of waste being generated through waste prevention, recycling, or purchasing recycled and environmentally preferable products.

**Sec. 210.** “Life cycle cost” means the amortized annual cost of a product, including capital costs, installation costs, operating costs, maintenance costs, and disposal costs discounted over the lifetime of the product.

**Sec. 211.** “Life cycle assessment” means the comprehensive examination of a product’s environmental and economic aspects and potential impacts throughout its lifetime, including raw material extraction, transportation, manufacturing, use, and disposal.

**Sec. 212.** “Pollution prevention” means “source reduction” as defined in the Pollution Prevention Act of 1990 (42 U.S.C. 13102), and other practices that reduce or eliminate the creation of pollutants through: (a) increased efficiency in the use of raw materials, energy, water, or other resources; or (b) protection of natural resources by conservation.

**Sec. 213.** “Biobased product” means a commercial or industrial product (other than food or feed) that utilizes biological products or renewable domestic agricultural (plant, animal, and marine) or forestry materials.

**Sec. 214.** “Major procuring agencies” shall include Cabinet agencies and any other Executive agency that procures over \$50 million per year of goods and services.

### **PART 3 -THE ROLES AND DUTIES OF THE STEERING COMMITTEE, FEDERAL ENVIRONMENTAL EXECUTIVE, TASK FORCE, AND AGENCY ENVIRONMENTAL EXECUTIVES**

**Sec. 301. Committees, Executives, and Task Force.** (a) **Steering Committee.** There is hereby established a Steering Committee on Greening the Government through Waste Prevention and Recycling (“Steering Committee”). The Steering Committee shall be composed of the Chair of the Council on Environmental Quality (“CEQ”), the Federal Environmental Executive (“FEE”), and the Administrator of the Office of Federal Procurement Policy (“OFPP”). The Steering Committee, which shall be chaired by the Chair of the CEQ, is directed to charter a Task Force to facilitate implementation of this order, and shall provide the Task Force with policy direction in such implementation.

(b) **Federal Environmental Executive.** A FEE shall be designated by the President. The FEE shall chair the Task Force described in subsection (c), take all actions necessary to ensure that the agencies comply with the requirements of this order, and generate a biennial report to the President.

(c) **Task Force.** The Steering Committee shall charter a Task Force on Greening the Government through Waste Prevention and Recycling (“Task Force”), which shall be chaired by the FEE and composed of staff from the major procuring agencies. The Steering Committee, in consultation with the agencies, shall determine the necessary staffing and resources for the Task Force. The major procuring agencies shall provide, to the extent practicable and permitted by law, resources and support to the Task Force and the FEE, upon request from the Steering Committee. The Task Force shall have the duty of assisting the FEE and the agencies in implementing this order, subject to policy direction provided by the Steering Committee. The Task Force shall report through the FEE to the Chair of the Steering Committee.

(d) **Agency Environmental Executives (AEEs).** Within 90 days after the date of this order, the head of each Executive department and major procuring agency shall designate an AEE from among his or her staff, who serves at a level no lower than the Assistant Secretary level or equivalent, and shall notify the Chair of CEQ and the FEE of such designation.

**Sec. 302. Duties.** (a) The Federal Environmental Executive. The FEE, working through the Task Force, and in consultation with the AEEs, shall:

1) Develop a Government-wide Waste Prevention and Recycling Strategic Plan (“Strategic Plan”) to further implement this order. The Strategic Plan should be initially developed within 180 days of the date of this order and revised as necessary thereafter. The Strategic Plan should include, but is not limited to, the following elements:

- a) direction and initiatives for acquisition of recycled and recyclable products and environmentally preferable products and services;
- b) development of affirmative procurement programs;
- c) review and revision of standards and product specifications;
- d) assessment and evaluation of compliance;
- e) reporting requirements;



- f) outreach programs to promote adoption of practices endorsed in this order; and
- g) development and implementation of new technologies that are of environmental significance.

2) Prepare a biennial report to the President on the actions taken by the agencies to comply with this order. The report also may incorporate information from existing agency reports regarding government-wide progress in implementing the following Executive Orders: 12843, Procurement Requirements and Policies for Federal Agencies for Ozone Depleting Substances; 13031, Federal Alternative Fueled Vehicle Leadership; 12845, Requiring Agencies to Purchase Energy Efficient Computer Equipment; 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements; 12902, Energy Efficiency and Water Conservation at Federal Facilities; and 12969, Federal Acquisition and Community Right-to-Know.

3) In coordination with the Office of Federal Procurement Policy, the Environmental Protection Agency (EPA), the General Services Administration (GSA), and the Department of Agriculture (USDA), convene a group of acquisition/procurement managers and environmental state, and local government managers to work with state, and local governments to improve the Federal, state and local governments' use of recycled products and environmentally preferable products and services.

(4) Coordinate appropriate government-wide education and training programs for agencies.

(5) Establish committees and work groups, as needed, to identify, assess, and recommend actions to be taken to fulfill the goals, responsibilities, and initiatives of the FEE. As these committees and work groups are created, agencies are requested to designate appropriate personnel in the areas of procurement and acquisition, standards and specifications, electronic commerce, facilities management, pollution prevention, waste prevention, and recycling, and others as needed to staff and work on these initiatives. An initial group shall be established to develop recommendations for tracking and reporting requirements, taking into account the costs and benefits of such tracking and reporting. The Steering Committee shall consult with the AEEs before approving these recommendations.

(b) Agency Environmental Executives. The AEEs shall:

(1) translate the Government-wide Strategic Plan into specific Agency and Service Plans;

(2) implement the specific Agency and Service plans;

(3) report to the FEE on the progress of plan implementation;

(4) work with the FEE and the Task Force in furthering implementation of this order; and

(5) track agencies' purchases of EPA-designated guideline items and report agencies' purchases of such guideline items to the FEE per the recommendations developed in subsection 302(a)(5) of this order. Agency acquisition and procurement personnel shall justify in writing to the file and to the AEE the rationale for not purchasing such items, above the micropurchase threshold (as set out in the Office of Federal Procurement Policy Act at 41 U.S.C. 428), and submit a plan and timetable for increasing agency purchases of the designated item(s).

(6) one year after a product is placed on the USDA Biobased Products List, estimate agencies' purchases of products on the list and report agencies' estimated purchases of such products to the Secretary of Agriculture.

## PART 4 - ACQUISITION PLANNING, AFFIRMATIVE PROCUREMENT PROGRAMS, AND FEDERAL FACILITY COMPLIANCE

**Sec. 401. Acquisition Planning.** In developing plans, drawings, work statements, specifications, or other product descriptions, agencies shall consider, as appropriate, a broad range of factors including: elimination of virgin material requirements; use of biobased products; use of recovered materials; reuse of product; life cycle cost; recyclability; use of environmentally preferable products; waste prevention (including toxicity reduction or elimination); and ultimate disposal. These factors should be considered in acquisition planning for all procurement and in the evaluation and award of contracts, as appropriate. Program and acquisition managers should take an active role in these activities.

**Sec. 402. Affirmative Procurement Programs.** (a) The head of each Executive agency shall develop and implement affirmative procurement programs in accordance with section 6002 of the RCRA (42 U.S.C. 6962) and this order and consider use of the procurement tools and methods described in 7 U.S.C. 5909. Agencies shall ensure that responsibilities for preparation, implementation, and monitoring of affirmative procurement programs are shared between the program personnel and acquisition and procurement personnel. For the purposes of all purchases made pursuant to this order, EPA, in consultation with such other Executive agencies as appropriate, shall endeavor to maximize environmental benefits, consistent with price, performance, and availability considerations, and constraints imposed by law, and shall adjust solicitation guidelines as necessary in order to accomplish this goal.

(b) Agencies shall establish affirmative procurement programs for all EPA-designated guideline items purchased by their agency. For newly designated items, agencies shall revise their internal programs within one year from the date EPA designated the new items.

(c) Exclusive of the biobased products described in section 504, for the EPA-designated guideline items, which are contained in 40 CFR part 247, and for all future designated guideline items, agencies shall ensure that their affirmative procurement programs require 100 percent of their purchases of products to meet or exceed the EPA guideline unless written justification is provided that a product is not available competitively within a reasonable time frame, does not meet appropriate performance standards, or is only available at an unreasonable price. Written justification is not required for purchases below the micropurchase threshold. For micropurchases, agencies shall provide guidance regarding purchase of EPA-designated guideline items. This guidance should encourage consideration of aggregating purchases when this method would promote economy and efficiency.

(d) Within 90 days after the date of this order, the head of each Executive agency that has not implemented an affirmative procurement program shall ensure that the affirmative procurement program has been established and is being implemented to the maximum extent practicable.

**Sec. 403. Federal Facility Compliance.** (a) Within six months of the date of this order, the Administrator of EPA shall, in consultation with the Federal Environmental Executive, prepare guidance for use in determining federal facility compliance with RCRA section 6002 and the related requirements of this order.

(b) EPA inspections of federal facilities conducted pursuant to RCRA and the Federal Facility Compliance Act and EPA “multi-media” inspections carried out at Federal facilities will include, where appropriate, evaluation of facility compliance with RCRA section 6002 and any implementing guidance.

(c) Where inspections of federal facilities are carried out by authorized states pursuant to RCRA

and the Federal Facility Compliance Act, the Administrator will encourage those states to include evaluation of facility compliance with RCRA section 6002 in light of EPA guidance prepared pursuant to subsection (a), where appropriate, similar to inspections performed by EPA. EPA may provide information and technical assistance to the states to enable them to include such considerations in their inspection.

(d) EPA shall report annually to the Federal Environmental Executive on the results of inspections performed by EPA to determine federal facility compliance with RCRA section 6002 not later than February first for those inspections conducted during the previous fiscal year.

## **PART 5 - STANDARDS, SPECIFICATIONS, AND DESIGNATION OF ITEMS**

**Sec. 501. Specifications, Product Descriptions, and Standards.** When developing, reviewing, or revising Federal and military specifications, product descriptions (including commercial item descriptions), and standards, Executive agencies shall consider recovered materials and any environmentally preferable purchasing criteria developed by EPA, and ensure the criteria are complied with in developing or revising standards. Agencies shall report annually to the FEE on their compliance with this section for incorporation into the biennial report to the President referred to in section 302 of this order.

(a) If an inconsistency with RCRA section 6002 or this order is identified in a specification, standard, or product description, the FEE shall request that the Environmental Executive of the pertinent agency advise the FEE as to why the specification cannot be revised or submit a plan for revising it within 60 days.

(b) If an agency is able to revise an inconsistent specification but cannot do so within 60 days, it is the responsibility of that AEE to monitor and implement the plan for revising it.

**Sec. 502. Designation of Items that Contain Recovered Materials.** In order to expedite the process of designating items that are or can be made with recovered materials, EPA shall use the following process for designating these items in accordance with RCRA section 6002(e).

(a) EPA shall designate items that are or can be made with recovered material, by promulgating amendments to the Comprehensive Procurement Guideline (“CPG”). The CPG shall be updated every two years or as appropriate after an opportunity for public comment.

(b) Concurrent with the issuance of the CPG, EPA shall publish for comment in the Federal Register, Recovered Materials Advisory Notices that present the range of recovered materials content levels within which the designated items are currently available. These levels shall be updated periodically, after opportunity for public comment, to reflect changes in market conditions.

(c) Once items containing recovered materials have been designated by EPA in the CPG, agencies shall modify their affirmative procurement programs to require that, to the maximum extent practicable, their purchases of products meet or exceed the EPA guidelines unless written justification is provided that a product is not available competitively, not available within a reasonable time frame, does not meet appropriate performance standards, or is only available at an unreasonable price.

**Sec. 503. Guidance on Acquisition of Environmentally Preferable Products and Services.** (a) EPA shall develop Guidance within 90 days from the date of this order to address environmentally preferable purchasing. The Guidance may be based on EPA’s September 1995 Proposed Guidance on the Acquisition of Environmentally Preferable Products and Services and comments received thereon.

The Guidance should be designed for government-wide use and targeted towards products and services that have the most effect. The Guidance may also address the issues of use of the technical expertise of non-governmental entities and tools such as life cycle assessment in decisions on environmentally preferable purchasing. EPA shall update this Guidance every two years, or as appropriate.

(b) Agencies are encouraged to immediately test and evaluate the principles and concepts contained in EPA's Guidance on the Acquisition of Environmentally Preferable Products and Services through pilot projects to provide practical information to EPA for further updating of the Guidance. Specifically:

(1) These pilot projects shall be focused around those product and service categories, including printing, that have wide use within the Federal Government. Priorities regarding which product and service categories to pilot shall be developed by the individual agencies and EPA, in consultation with OFPP, the FEE, and the appropriate agency Procurement Executives. Any policy disagreements shall be resolved by the Steering Committee.

(2) Agencies are encouraged to use all of the options available to them to determine the environmentally preferable attributes of products and services in their pilot and demonstration projects, including the use of technical expertise of non-governmental entities such as labeling, certification, or standards-developing organizations, as well as using the expertise of the National Institute of Standards and Technology.

(3) Upon request and to the extent practicable, EPA shall assist the Executive agencies in designing, implementing, and documenting the results of these pilot and demonstration projects.

(4) EPA, in coordination with other Executive agencies, shall develop a database of information about these projects, including, but not limited to, the number and status of pilot projects, examples of agencies' policy directives, revisions to specifications, solicitation procedures, and grant/contract policies that facilitate adoption of environmentally preferable purchasing practices, to be integrated on a commonly available electronic medium (e.g., Internet Web site). These data are to be reported to the FEE.

(c) Executive agencies shall use the principles and concepts in the EPA Guidance on Acquisition of Environmentally Preferable Products and Services, in addition to the lessons from the pilot and demonstration projects, to the maximum extent practicable, in identifying and purchasing environmentally preferable products and services and shall modify their procurement programs as appropriate.

**Sec. 504. Designation of Biobased Items by the USDA.** The USDA Biobased Products Coordination Council shall, in consultation with the FEE, issue a Biobased Products List.

(a) The Biobased Products List shall be published in the Federal Register within 180 days after the date of this order and shall be updated bi-annually after publication to include additional items.

(b) Once the Biobased Products List has been published, agencies are encouraged to modify their affirmative procurement program to give consideration to those products.

**Sec. 505. Minimum Content Standard for Printing and Writing Paper.** Executive agency heads shall ensure that their agencies meet or exceed the following minimum materials content standards when purchasing or causing the purchase of printing and writing paper:

(a) For high speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, file folders, white wove envelopes, writing and office paper, book paper, cotton fiber paper, and cover stock, the minimum content standard shall be no less than 30 percent postconsumer materials beginning December 31, 1998. If paper containing 30 percent postconsumer material is not reasonably available, does not meet reasonable performance requirements, or is only available at an unreasonable price, then the agency shall purchase paper containing no less than 20 percent postconsumer material. The Steering Committee, in consultation with the AEEs, may revise these levels if necessary.

(b) As an alternative to meeting the standards in sections 505(a), for all printing and writing papers, the minimum content standard shall be no less than 50 percent recovered materials that are a waste material byproduct of a finished product other than a paper or textile product that would otherwise be disposed of in a landfill, as determined by the State in which the facility is located.

(c) Effective January 1, 1999, no executive branch agency shall purchase, sell, or arrange for the purchase of printing and writing paper that fails to meet the minimum requirements of this section.

**Sec. 506. Revision of Brightness Specifications and Standards.** The GSA and other Executive agencies are directed to identify, evaluate, and revise or eliminate any standards or specifications unrelated to performance that present barriers to the purchase of paper or paper products made by production processes that minimize emissions of harmful byproducts. This evaluation shall include a review of unnecessary brightness and stock clause provisions, such as lignin content and chemical pulp requirements. The GSA shall complete the review and revision of such specifications within six months after the date of this order, and shall consult closely with the Joint Committee on Printing during such process. The GSA shall also compile any information or market studies that may be necessary to accomplish the objectives of this provision.

**Sec. 507. Procurement of Re-refined Lubricating Oil and Retread Tires.** (a) Agencies shall implement the EPA procurement guidelines for re-refined lubricating oil and retread tires. Fleet and commodity managers shall take immediate steps, as appropriate, to procure these items in accordance with RCRA section 6002. This provision does not preclude the acquisition of biobased (e.g., vegetable) oils.

(b) The FEE shall work to educate Executive agencies about the new Department of Defense Cooperative Tire Qualification Program, including the Cooperative Approval Tire List and Cooperative Plant Qualification Program, as they apply to retread tires.

## **PART 6 - AGENCY GOALS AND REPORTING REQUIREMENTS**

**Sec. 601. Agency Goals.** (a)(1) Each agency shall establish either a goal for solid waste prevention and a goal for recycling or a goal for solid waste diversion to be achieved by January 1, 2000. Each agency shall further assure that the established goals include long-range goals to be achieved by the years 2005 and 2010. These goals shall be submitted to the FEE within 180 days after the date of this order.

(2) In addition to white paper, mixed paper/cardboard, aluminum, plastic, and glass, agencies should incorporate into their recycling programs efforts to recycle, reuse, or refurbish pallets and collect toner cartridges for remanufacturing. Agencies should also include programs to reduce or recycle, as appropriate, batteries, scrap metal, and fluorescent lamps and ballasts.

(b) Agencies shall set goals to increase the procurement of products that are made with recovered materials, in order to maximize the number of recycled products purchased, relative to non-recycled alternatives.



(c) Each agency shall set a goal for increasing the use of environmentally preferable products and services, for those products and services for which the agency has completed a pilot program.

(d) Agencies are encouraged to incorporate into their Government Performance Results Act annual performance plans the goals listed in subsections (a), (b), and (c) above, starting with the submittal to the Office of Management and Budget of the plan accompanying the FY 2001 budget.

(e) Progress on attaining these goals should be reported by the agencies to the FEE for the biennial report specified in section 302 of this order.

## **PART 7 - APPLICABILITY AND OTHER REQUIREMENTS**

**Sec. 701. Contractor Applicability.** Contracts that provide for contractor operation of a government-owned or -leased facility and/or contracts that provide for contractor or other support services at government-owned or -operated facilities awarded by Executive agencies after the date of this order, shall include provisions that obligate the contractor to comply with the requirements of this order within the scope of its operations.

**Sec. 702. Real Property Acquisition and Management.** Within 90 days after the date of this order, and to the extent permitted by law and where economically feasible, Executive agencies shall ensure compliance with the provisions of this order in the acquisition and management of federally owned and leased space. GSA and other Executive agencies shall also include environmental and recycling provisions in the acquisition and management of all leased space and in the construction of new federal buildings.

**Sec. 703. Retention of Funds.** (a) The Administrator of GSA shall continue with the program that retains for the agencies the proceeds from the sale of materials recovered through recycling or waste prevention programs and specifying the eligibility requirements for the materials being recycled.

(b) Agencies in non-GSA-managed facilities, to the extent permitted by law, should develop a plan to retain the proceeds from the sale of materials recovered through recycling or waste prevention programs.

**Sec. 704. Model Facility Programs.** Each Executive agency shall establish a model demonstration program incorporating some or all of the following elements as appropriate. Agencies are encouraged to demonstrate and test new and innovative approaches such as incorporating environmentally preferable and bio-based products; increasing the quantity and types of products containing recovered materials; expanding collection programs; implementing source reduction programs; composting organic materials when feasible; and exploring public/private partnerships to develop markets for recovered materials.

**Sec. 705. Recycling Programs.** (a) (1) Each Executive agency that has not already done so shall initiate a program to promote cost effective waste prevention and recycling of reusable materials in all of its facilities. The recycling programs implemented pursuant to this section must be compatible with applicable State and local recycling requirements. (2) Agencies shall designate a recycling coordinator for each facility or installation. The recycling coordinator shall implement or maintain waste prevention and recycling programs in the agencies' action plans.

(b) Executive agencies shall also consider cooperative ventures with State and local governments to promote recycling and waste reduction in the community.

*Sec. 706. Review of Implementation.* The President's Council on Integrity and Efficiency will request that the Inspectors General periodically review agencies' implementation of this order.

## **PART 8 - AWARENESS**

*Sec. 801. Training.* (a) Within 180 days of the date of this order, the FEE and OFPP should evaluate the training courses provided by the Federal Acquisition Institute and the Defense Acquisition University and recommend any appropriate curriculum changes to ensure that procurement officials are aware of the requirements of this order.

(b) Executive agencies shall provide training to program management and requesting activities as needed to ensure awareness of the requirements of this order.

*Sec. 802. Internal Agency Awards Programs.* Each agency shall develop an internal agency-wide awards program, as appropriate, to reward its most innovative environmental programs. Among others, winners of agency-wide awards will be eligible for the White House awards program.

*Sec. 803. White House Awards Program.* A government-wide award will be presented annually by the White House to the best, most innovative program implementing the objectives of this order to give greater visibility to these efforts so that they can be incorporated government-wide.

## **PART 9 - REVOCATION, LIMITATION AND IMPLEMENTATION**

*Sec. 901.* Executive Order No. 12873, of October 20, 1993, is hereby revoked.

*Sec. 902.* This order is intended only to improve the internal management of the executive branch and is not intended to create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law by a party against the United States, its agencies, its officers, or any other person.

*Sec. 903.* The policies and direction expressed in the EPA Guidance to be developed pursuant to section 503 of this order shall be implemented and incorporated in the Federal Acquisition Regulation within 180 days after issuance of the Guidance.

**WILLIAM J. CLINTON**

**THE WHITE HOUSE.**

**September 14, 1998.**



# Appendix B

## Agency Environmental Executives

### DEPARTMENTS

#### Department of Agriculture

Dr. I. Miley Gonzalez  
Room 217W Whitten Building  
1400 Independence Avenue, SW  
Washington, DC 20250-0103  
(202) 720-5923

Deborah Matz  
Deputy Assistant Secretary  
for Administration  
Room 240W Whitten Building  
1400 Independence Avenue, SW  
Washington DC 20250-0103  
(202) 720-3590

#### Department of Commerce

Linda Bilmes  
Assistant Secretary for  
Administration  
Department of Commerce  
Room 5830  
1400 Constitution Avenue, NW  
Washington, DC 20460  
(202) 482-4951

#### Department of Defense

Sherri Goodman  
Deputy Under Secretary of Defense  
for Environmental Security  
Room 3E792  
3400 Defense Pentagon  
Washington, DC 20301-3400  
(202) 301-3400

#### Department of Education

Willie Gilmore  
Director, Office of Management  
Suite 2W300  
400 Maryland Avenue, SW  
Washington, DC 20202-4500  
(202) 401-0470

#### Department of Energy

Dan Reicher  
Assistant Secretary  
Office of Energy Efficiency & Renewable  
Energy  
Room 6C016  
1000 Independence Avenue, SW  
Washington, DC 20585  
(202) 586-9220

#### Department of Health and Human Services

John J. Callahan  
Assistant Secretary for Management  
and Budget  
200 Independence Avenue, SW  
Room 514G  
Washington, DC 20201  
(202) 690-6396

#### Department of Housing and Urban Development

Scott Cragg  
Deputy Assistant Secretary  
for Technical Services  
451 7th Street, SW  
Washington, DC 20410  
(202) 707-0614 Ext. 355

**Department of Interior**

John Berry  
 Assistant Secretary  
 Office of Policy, Management & Budget  
 1849 C Street, NW  
 Washington, DC 20240  
 (202) 208-3891

**Department of Justice**

Stephen Colgate  
 Assistant Attorney General  
 for Administration  
 Justice Management Division  
 Main Justice Building  
 Room 1112  
 950 Pennsylvania Avenue, NW  
 Washington, DC 20530  
 (202) 514-3101

**Department of Labor**

Patricia Lattimore  
 Assistant Secretary for Administration  
 and Management  
 200 Constitution Avenue, NW  
 Room S 2203  
 Washington, DC 20210  
 (202) 693-4040

**Department of State**

Patrick Kennedy  
 Agency Environmental Executive  
 Department of State  
 Bureau of Administration  
 Washington, DC 20520  
 (202) 647-1492

**Department of Transportation**

Melissa Allen  
 Assistant Secretary for Administration  
 Room 10314  
 400 7th Street, SW  
 Washington, DC 20590  
 (202) 366-2332

**Department of Treasury**

Lisa Ross  
 Assistant Secretary for Management  
 and CFO  
 Room 2426  
 1500 Pennsylvania Avenue, NW  
 Washington, DC 20220  
 (202) 622-0410

**Department of Veteran Affairs**

Edward Powell  
 Assistant Secretary for Financial  
 Management  
 Acquisition and Material Management  
 MC 004  
 810 Vermont Avenue, NW  
 Washington, DC 20420  
 (202) 273-5589

**AGENCIES****Central Intelligence Agency (CIA)**

Richard Calder  
 Deputy Director for Administration  
 Washington, DC 20505  
 (703)482-0901

**Environmental Protection Agency (EPA)**

Jim Aidala  
 Associate Assistant Administrator  
 Office of Prevention, Pesticide and Toxic  
 Substances  
 MC 7101  
 401 M Street, SW  
 Washington, DC 20460  
 (202) 260-2897

Romulo Diaz  
 Assistant Administrator for  
 Administration and Resource  
 Management  
 Ariel Rios Building  
 1200 Pennsylvania Avenue, NW  
 MC 3101A  
 Washington, DC 20460  
 (202-564-4600

**General Services Administration (GSA)**

Paul Lynch  
Assistant Commissioner  
Office of Business Performance (PX)  
GSA Public Buildings Service  
Washington, DC 20405  
(202) 501-0971

**National Aeronautic Space Administration (NASA)**

Olga M. Dominguez  
Director, Environmental Management  
Division  
Office of Management Systems  
NASA Headquarters, Code JE  
300 E Street, SW  
Washington, DC 20546  
(202) 358-0230

**National Science Foundation (NSF)**

Linda Massaro  
Director, Office of Information &  
Resource Management  
Suite 305  
4201 Wilson Boulevard  
Arlington, VA 22203  
(703) 306-1100

**Nuclear Regulatory Commission (NRC)**

Patricia Norry  
Deputy Executive Director  
for Management Services  
Office of the Executive Director for  
Operations  
MS O-16E15  
Nuclear Regulatory Commission  
Washington, DC 20555  
(301) 415-7443

**Office of Personnel Management (OPM)**

Kirke Harper  
Director, Office of Contracting and  
Administration Services  
Room 1340  
1900 E Street, NW  
Washington, DC 20415  
(202) 606-2200

**U.S. Postal Service (USPS)**

Dennis Baca  
Agency Environmental Executive  
475 L-Enfant Plaza, SW  
Suite IP 830  
Washington, DC 20260-2810  
(202) 268-6012

**Smithsonian Institution**

John Cobert  
Director and Contracting Officer  
Office of Contracting and Property  
Management  
Suite P-114  
955 L'Enfant Plaza, SW  
Washington, DC 20560

**Social Security Administration (SSA)**

Yvette Jackson  
Deputy Commissioner for Finance  
Assessment & Management  
Altmeyer Building, Room 800  
6401 Security Boulevard  
Baltimore, MD 21235  
(410) 965-2910

**Tennessee Valley Authority (TVA)**

Jon M. Loney  
Manager, Environmental Management  
TVA  
400 W. Summit Hill Drive  
Knoxville, TN 37902  
(423) 632-3012

**United States Consumer Products Safety Commission (USCPSC)**

Mauna V. Kammer  
Associate Executive Director for  
Administration  
USCPSC  
Suite 521A  
Washington, DC 20207  
(301) 504-0075 Ext. 1104





# Appendix C

## Green Product Information Resources

### The Official Recycled Products Guide

Recycling Data Management Corporation  
P.O. Box 577  
Ogdensburg, NY 13669-0577  
800-267-0707

The Official Recycled Products Guide is a subscription based comprehensive directory of recycled product manufacturers and vendors. Over 4,500 listings of manufacturers and distributors of recycled products are included. State Solid Waste Offices, EPA Regional Offices and State Purchasing/Procurement Offices are also listed.

The listings are cross-referenced alphabetically, geographically and by product type. Recycling Data Management also offers updated information on the above toll-free line, and provides a separate on-line computer system with information on recycled products and recycled material markets.

### U.S. Environmental Protection Agency

1200 Pennsylvania Ave., NW (5306W)  
Washington, D.C. 20460  
800-424-9346

To order any of the following documents, call the toll-free number above and give the document number (in parentheses):

- WasteWi\$e Tip Sheet: Buying or Manufacturing Recycled Products (EPA 530-F-94-005)

This document: defines (buying recycled) and recycled content terms, discusses the benefits of buying or manufacturing goods with recycled content, addresses how the purchase of recycled products and recovered raw materials fits into EPA's WasteWi\$e program. In addition, the document lists types of products available with

recycled content, costs and quality of recycled products and recovered raw materials and cites sources of additional information.

- RAC Final Report on Recycled Paper Definitions, Procurement Standards, Measurement Protocol, Labeling Guidelines, and Buy-Recycled Initiatives Background to 60 FR 14182 (3/15/95). F-95-PPRN-S0003.
- Resources about Buying Recycled Products (530-B-98-007)

This Document provides abstracts of the fact sheets and other non-regulatory, informational resources relevant to the CPG.

### American Forest & Paper Association

1111 19th St, NW  
Suite 800  
Washington, D.C. 20005  
800-878-8878  
<http://www.afandpa.org>

The agency has information on recycled paper products

### American Plastics Council

1801 K Street, N.W., Suite 701-L  
Washington, D.C. 20006  
800-243-5790

A Recycled Plastic Products Source Book is available. (There is a guide for government and business and a separate guide for consumers.)

### Buy Recycled Business Alliance

1727 King Street, Suite 105  
Alexandria, VA 22314-2720  
703-683-9025  
[www.brba.nrc-recycle.org](http://www.brba.nrc-recycle.org)

A publications list is available through web site or phone.

### **Green Seal**

1730 Rhode Island Avenue, NW  
Suite 1050  
Washington, D.C. 20036-3101  
202-331-7337  
<http://www.greenseal.org>

Buy Recycled Standards for recycled products.

### **International Tire and Rubber Association (ITRA)**

P.O. Box 37203  
Louisville, KY 40223  
502-968-8900

Information is available on how to prepare bid specifications for retread and repaired tires.

### **National Association for PET Container Resources (NAPCOR)**

3770 Nations Bank Corporate Center  
100 North Tryon Street  
Charlotte, NC 28202  
704-358-8882

A purchasing guide for recycled PET plastics is available.

### **National Association of Purchasing Management**

2055 E. Centennial Circle  
P.O. Box 22160  
Tempe, AZ 85285-2160  
602-752-6276  
<http://www.napm.org>

The site contains information on specifications.

### **National Association of State Purchasing Officials**

167 Main Street  
Suite 600  
Lexington, KY 40507  
606-259-0959

The organization has information on specs/computer information on recycled products.

### **National Institute of Governmental Purchasing**

151 Spring Street, Suite 300  
Herndon, VA 20170  
703-736-8900  
800-367-6447  
<http://www.nigp.org>

### **Remanufacturing Industries Council International**

4401 Fair Lakes Court, Suite 210  
Fairfax, VA 22033-3848  
703-968-2995  
<http://www.rici.org>

Information on remanufactured products is available.

### **Scrap Tire Management Council**

1400 K Street, NW  
Washington, D.C. 20005  
202-408-7781

*The Recycled Rubber Products Catalogue* is produced by the Council.

### **Secondary Materials and Recycled Textiles**

7910 Woodmont Avenue, Suite 1212  
Bethesda, MD 20814  
301-656-1077

*Secondary Materials and Recycled Textiles Buyers Guide and Directory* is available.

### **Additional Recycled Tire Resources**

Bandag Incorporated  
ATTN: Jim Murray  
2905 N. Highway 61  
Muscatine, IA 52761-5886  
(319) 262-2432

Frank Fargo Tire & Rubber Company  
135 East 58th Street  
Los Angeles, CA 90011  
213-231-5134

The Goodyear Tire & Rubber Company  
Retread Division  
1144 East Market Street  
Akron, OH 44316-0001  
3300-796-2884

Hercules Tire & Rubber Company  
Retread Division  
1300 Morrival Blvd.  
Findlay, OH 45840-1699  
419-425-6400

Oliver Rubber Company  
165 Dougherty  
Athens, GA 30603  
706-354-0810

### **Resources for Environmentally Preferable Products**

US Environmental Protection Agency  
401 M Street, SW  
Washington, DC 20460

EPA's Greening Uncle Sam (GUS) Purchasing  
Tool

EPA's Environmentally Preferable Purchasing Program is in the process of developing a suite of tools to assist purchasers in putting EPP into practice. This purchasing tool will include the following:

- interactive general training session on EPP;
- the "how to's" of EPP purchasing;
- "promising practices" guide for green contracts; and
- database of environmental information for products and services.

## RECYCLING RESOURCES

### United States Environmental Protection Agency

To order the following EPA documents on waste prevention, call the RCRA Hotline at (800) 424-9346 or TDD (800) 553-7672 for the hearing impaired. In Washington, DC, call (703) 412-9810 or TDD (703) 412-3323.

- *Business Guide for Reducing Solid Waste* (EPA530-K-92-004). This comprehensive, practical guide offers step-by-step suggestions for designing and implementing a waste prevention program.
- *Waste Prevention Pays Off: Companies Cut Waste in the Workplace* (EPA530-K-92-005). This collection of brief case studies describes how companies and municipalities have cut costs by preventing waste.
- *Environmental Fact Sheet: Municipal Solid Waste Prevention in Federal Agencies* (EPA530-F-92-016). This fact sheet outlines efforts under way by Federal agencies to reduce waste and briefly explains how to start a waste prevention program.
- *Paper-Less Office Campaign: An Agency wide Waste Prevention Program* (EPA530-F-94-012). This brochure outlines EPA's campaign to reduce the amount of paper used throughout the Agency by a variety of methods, including double-sided copying and electronic communication.

### National Office Paper Recycling Project & Recycling at Work

United States Conference of Mayors  
1620 Eye Street, NW  
Washington, D.C. 20460  
202-223-3088

- Handbook on buying recycled paper and collecting office wastepaper.
- "Recycling at Work" and "Clean Your Files" programs.

### National Recycling Coalition

1727 King Street, Suite 105  
Alexandria, VA 22314-2720  
703-683-9025

- Publications list available through phone or web site

### Asphalt Rubber Producers Group

312 Massachusetts Avenue, NE  
Washington, D.C. 20002  
202-544-7111

### Automotive Recyclers Association

3975 Fair Ridge Drive, Suite 20  
Terrace Level- North  
Fairfax, VA 22033-2944  
703-385-1001

### Cellulose Insulation Manufacturers Association

136 S. Keowee Street  
Dayton, OH 45402  
513-222-1024

**Glass Packaging Institute**

1627 K Street, NW Suite 800  
Washington, D.C. 20006  
202-887-4850

**International Cartridge  
Recycling Association**

1101 Connecticut Avenue, NW  
Washington, D.C. 20036  
202-857-1154

**National Association of  
Chemical Recyclers**

1200 G Street, NW, Suite 800  
Washington, D.C. 20009-5728  
202-434-8740

**Plastic Lumber Trade Association**

P.O. Box 80311  
Akron, OH 44308-9998  
216-762-1963

**Reuse Development Organization**

P.O. Box 441363  
Indianapolis, IN 46244  
317-631-5395

**Scientific Certification Systems**

1939 Harrison Street, Suite 400  
Oakland, CA 94612  
510-832-1415

- Certification of recycled content claims and other environmental claims; environmental report cards for products

**Steel Recycling Institute**

Foster Plaza 10  
680 Anderson Drive  
Pittsburgh, PA 15220  
800-876-7274

**Tire Retread Information Bureau**

900 Weldon Grove  
Pacific Grove, CA 93950  
408-372-1917





# Appendix D

## Where Can Agencies Buy Recycled Content Products?

The following Federal agencies provide supplies and services to the Federal Government. Users can be assured the products containing recovered materials have been procured based on appropriate specifications and standards meeting the Executive Order and RCRA requirements. These procurement sources can greatly help agencies achieve their “buy recycled” goals. An additional benefit to buying from these sources is their ability to track and report recycled content product purchases directly to OMB and FEE, thereby reducing agency reporting requirements.

### General Services Administration

Through a multifaceted supply system, the General Services Administration (GSA) Federal Supply Service provides the Federal community with thousands of environmentally oriented products and services. This includes more than 1,000 EPA designated items such as: recycled content paper and paper products, retread tires, and building insulation; energy conserving items including: appliances, Energy Star computers, office equipment, and alternative fueled vehicles; reformulated paint and chemical products; and regional contracts for the recovery, recycling, and disposal of hazardous and non-hazardous materials, including contracts for excess furniture recycling. Information concerning these products and services is contained in GSA’s *Environmental Products Guide* (EPG), a handy reference companion to the GSA Supply Catalog, Customer Supply Center Catalogs, Federal Supply Schedules, and other publications. The EPG is also available on GSA’s Multi-User File for Interagency News (MUFFIN), an electronic bulletin board. To get a copy of the latest EPG or MUFFIN manual, contact

the GSA Centralized Mailing List Service (CMLS), Box 6477, Fort Worth, TX 76115 or call (817) 334-5215. For computer support help with MUFFIN, call (703) 305-7200. GSA’s environmentally oriented products and services are available on the Internet through GSA ADVANTAGE!, an on-line shopping service. This new system enables GSA’s customers to browse, search for product specific information, review delivery options, and place orders instantly.

The address is: <http://www.gsa.gov>. Advantage On-line Shopping Service Internet e-mail address: [GSA.Advantage@gsa.gov](mailto:GSA.Advantage@gsa.gov). Voice mail Hotline: (703) 305-7359.

Another service GSA provides allows new products to be introduced to Federal customers. The *New Item Introductory Schedule* (NIIS) is a specialized Federal Supply Schedule designed to introduce new or improved products to the Federal government in order to test demand. If sufficient demand develops, products are moved from the NIIS to a permanent placement method of supply (PPMOS). NIIS contracts are awarded for three years under multi-year contracting authority.

GSA Forms 1171, New Item Applications are prepared by vendors and are reviewed and processed by the appropriate Business Service Center (BSC), the Logistics Data Management Division, and the appropriate commodity center, in accordance with FSS P 2901.11A.

### Defense Logistics Agency

The Defense Logistics Agency (DLA) is an important source of supply for environmental products and supplies. DLA’s Inventory Control Points (buying activities) support both

the Department of Defense and civilian agencies with such diverse products as energy-efficient lighting and motors, re-refined oil products, alternatives to ozone-depleting chemicals, or any of the other "Top 17" chemicals on EPA's 33/50 Target Chemical List, as well as recycled content or remanufactured products.

Two important DLA resource catalogs, the Energy Efficient Lighting Catalog and the expanded DLA Environmental Products Catalog, are dedicated to environmental product awareness. The DLA Environmental Products Catalog includes items from all DLA Inventory Control Points containing recycled material or having other environmental benefits. Products managed by DLA can be ordered by simply using standard ordering procedures in the FEDSTRIP/MILSTRIP format and submitted via autodiv, MUFFIN, DAMES, fax, or telephone.

To obtain information on these items or to be added to the mailing database, call (800) DLA-BULB (800) 352-2852 or fax (800) 352-3291. Military customers can call DSN 695-5699 or fax DSN 695-5695. For information on the CD-ROM version of the DLA Environmental Products Catalog, contact the Defense Logistics Service Center (DLSC) at (616) 961-4459 or DSN 932-4459.

The Defense Supply Center, Richmond (DSCR), within the DLA organization, can be accessed on the Internet: Home Page Address is <http://www.dscr.dla.mil>. On-line catalogs and ordering is possible. Products include energy efficient lighting, environmentally preferable products, motor oil, saws, welding machines, food services, etc. Their Director for Business Development can be reached at (800) 352-2852.

## Government Printing Office

The U.S. Government Printing Office (GPO) supplies printing paper and printing services to Federal departments and agencies, primarily those in the Washington, DC, area. Papers purchased through GPO on its three-month term contracts or in printing contracts contain recycled fiber in accordance with the Government Paper Specification Standards. Generally, these papers contain the minimum recycled fiber content as prescribed in EPA's recommendations and Executive Order 13101.

In GPO's blank paper sales program, many types of printing and copying paper are available. The program is explained in two catalogs, with pricing information published quarterly. These are available upon request from the Paper and Materials Control Section. The Blank Paper and Envelopes, Inks, and Services catalog contains cost information on smaller sheet sizes or office-sized paper wrapped in quantities of 500 or 1,000 sheets. The Paper Catalog lists paper used in printed and bound jobs. Both of these catalogs contain tables of recycled fiber content for each specified paper product sold by the GPO. Call (202) 512-0209 or fax requests to (202) 512-1569.

GPO sells copier paper under the following specifications. All copier paper purchased and sold by GPO is subject to careful testing and evaluation of performance before being placed on the copier paper qualified products list (QPL). GPO's technical staff assists customers with all printing paper and paper used for office printers, copiers, and other machines specified in agency requisitions.

- JCP O-60 - archival quality paper
- JCP O-61 - high quality paper for copiers and laser printers
- JCP O-63 - white and colored paper for copiers and laser printers

- JCP O-65 - white and colored paper for copiers
- JCP O-70 - 100% recycled content

JCP O-63 and O-65 require 30 percent postconsumer fiber content and meet the Executive Order content requirements. They are intended for paper used in laser printers, high speed, plain paper copiers and xerographic equipment.

JCP O-60 and O-61 have no minimum recycled fiber content requirement and, therefore, do not meet the requirements in the Executive Order. JCP O-60 is intended for producing products that require permanence (archival quality). JCP O-61 is intended for camera ready copy. JCP O-70 specifies at least 50 percent postconsumer fiber.



# Appendix E

## Big Three Automobile Manufacturers and Re-refined Oils

### Ford Motor Company Position On Re-Refined Base Engine Oils



Ford Motor Company does not specify the type of base oils to be used for engine oil meeting Ford's requirements. Regardless of the origin of the base oils, a non-Ford engine oil is acceptable for use if manufacturing and quality control practices ensure the oil continuously meets Ford's performance requirements.

Ford recommends using engine oil meeting Ford Specification ESEM2C153E and licensed as CERTIFIED FOR GASOLINE ENGINES by the AMERICAN PETROLEUM INSTITUTE (API Certification). Both virgin and re-refined engine oils are capable of meeting these requirements by qualifying against a series of rigorous tests designed to ensure their suitability for modern gasoline engines. While these tests confirm a specific sample of the oil qualifies with acceptable performance, it is the responsibility of the oil marketers to ensure that their products meet the requirements consistently and continuously.

In general, vehicle operation, adjustments and maintenance procedures, such as oil changes, performed contrary to recommended manufacturer specifications may, but do not automatically, void the applicable warranty. Each warranty claim is reviewed on its own merits. If, however, the use of a non-Ford product causes or contributes to the failure of a Ford component, the cost of repairing the affected component is not covered by the Ford vehicle warranty. In such cases, the vehicle owner would have to look to the seller or installer of the non-Ford product

for the replacement of the affected components and for any related damage to the vehicle.

Based on recent engine oil market surveys, Ford has concerns that some engine oils made with re-refined base oils may not consistently meet Ford's engine oil requirements. Test results show viscosity characteristics and low temperature performance of some engine oils made with re-refined base oils are unacceptable. However, there are other engine oils made with re-refined base oils which have met API Certification requirements and have met viscosity and low temperature characteristics.

Customers considering the use of engine oils made with re-refined base oils should be aware that the final product quality may vary if improper manufacturing controls are used. Marketers of engine oils made with re-refined base oils must adhere to standards for their base oils which ensure variations in re-refining processes or incoming raw materials do not adversely affect performance. In addition to a standard for the base oil properties, it is Ford's view that a re-refined oil produced with stringent manufacturing controls and batch to batch testing of low temperature viscosity performance and other significant characteristics would comply with Ford's recommendations.

Look for this Certification Mark

September 9, 1994



## General Motors Position on Use of Re-refined Engine Oils



General Motors recommends for use in its vehicles engine oils which meet the performance requirements specified in the latest International Lubricant Standardization and Approval Committee (ILSAC) Minimum Performance Standard (currently ILSAC GF1), and which are certified by the American Petroleum Institute for use in gasoline engines. Such oils may be identified in the marketplace by looking for the Certification Mark Shown below on the front of the engine oil container.

Engine oils meeting these requirements can be made with either virgin or re-refined base oils. In both cases it is the oil marketer's responsibility to ensure that the product satisfies the performance requirements specified above both during initial product approval, and during the time that the product is being manufactured for

sale. It is particularly important that steps be taken by marketers of engine oils made from re-refined base oils to ensure that variations in re-refining processes or raw materials do not adversely affect oil performance.

General Motors encourages the use of properly qualified re-refined products which consistently satisfy recommended performance requirements as a means of conserving vital petroleum resources. Use of re-refined products that have not been properly qualified or do not consistently meet performance requirements, however could result in engine damage, and could harm the reputation of all re-refined products. Engine damage caused by the use of an engine oil which does not meet the recommended performance specifications may not be covered by the General Motors new vehicle warranty.

Look for this  
Certification Mark

December 1, 1994





## Chrysler Corporation Position on Re-refined Engine Oils



The engine oil used in Chrysler vehicles must meet the Owners' Manual recommendation to satisfy warranty requirements. This recommendation is to use an oil displaying the American Petroleum Institute Certification Mark (shown below). It must also be the SAE viscosity grade appropriate to the temperature, as shown in the Owner's Manual.

Oils that display this registered mark on the front of the container are certified to meet all the requirements of the International Lubricant Standardization and Approval Committee (ILSAC) GF1 standard for engine oil. This specification does not differentiate between products made from virgin base oils or re-refined base oils. The marketer of the product must make sure that not only the initial product, but every batch of

oil, meets the requirements of this specification.

Oils made from re-refined base oils can meet these requirements; however, not all of them do. By careful control of re-refining and blending processes, some marketers produce good quality oils from re-refined base oils. These are acceptable for use under the Chrysler New Vehicle Limited Warranty, Low or inconsistent quality oils may cause engine damage not covered by warranty.

Chrysler encourages the proper disposal and recycling of used oil to preserve natural resources and the quality of the environment. Recycling is encouraged by the purchase and use of these products.

9/95



**General Services  
Administration**

**Federal Supply Service  
Washington, DC 20406**



FEBRUARY 27, 1995

MEMORANDUM FOR  
FEDERAL FLEET MANAGERS

FROM: LESTER D. GRAY, JR. DIRECTOR,  
FLEET MANAGEMENT DIVISION (FBF)

SUBJECT: Use of Re-refined Oil in Interagency  
Fleet Management System (IFMS) Vehicles

Recently, the General Services Administration (GSA) and the Federal Environmental Executive jointly sponsored a Conference on Re-refined Oil Use in Motor Vehicles. The December 7, 1994, conference included presentations by members of the re-refined oil industry, the American Petroleum Institute (API), and the American Automobile Manufacturers Association (AAMA), and the industry representative for the original equipment manufacturers (OEMs). The conference also included a number of representatives from Federal agencies which operate significant numbers of motor vehicles.

Prior to the December conference, the major issue affecting use of re-refined oil in IFMS vehicles was the position of the OEMs concerning vehicle warranty coverage. However, the AAMA representative indicated that the OEMs recently had updated their policies in this area. We then reviewed the OEMs new positions to determine if a change in the IFMS policy was necessary. Based upon this new information and the ability of some re-refined oils to meet API standards, we are revising our policy in this area.

Re-refined oil should be used in IFMS passenger vehicles and light duty trucks when available and where:

The re-refined Oil meets current API standards, as evidenced by the presence of the "Starburst" symbol on the front of the container;

The oil is the proper grade and viscosity for the vehicle being serviced (i.e., 5W30, 10W30, 10W40, etc.); and

The price of the re-refined oil is less than or equal to that of a comparable virgin oil product.

The IFMS has very few in-house maintenance facilities. At these few locations, however, we are working with the Defense General Support Center in Richmond, Virginia, to acquire re-refined oil, consistent with our new policy. Where we have cross-service agreements with other Federal agencies, our Fleet Managers and inspectors will be working with local motor vehicle representatives to encourage the use of re-refined oil through these agreements.

Current availability at service stations and quicklube type outlets varies throughout the country. We have requested the two major base-stock providers, Evergreen and SafetyKleen, to supply us with information about their present capability to meet our needs and their plans for expanding their distribution network. When this information, arrives it will be shared.

In light of the steps we are taking, we recommend reviewing agency policy on the use of re-refined oil for your own vehicle fleet. We plan to address this issue at the next meeting of the Interagency Motor Equipment Management Committee, now scheduled for March 3, 1995.

If you have questions or need additional information, please contact Mr. Larry Frisbee, (703) 305-6837.

(Note: the Defense General Supply Center is now the Defense Supply Center Richmond.)



# Appendix F

## Changes to the Federal Acquisition Regulation

FAR Case 92-054A

The Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council issued a final revision to the Federal Acquisition Regulation (FAR) for environmentally preferable and energy-efficient products and services on August 22, 1997 (62 FR 44809-44813). An interim revision had been issued on May 31, 1995, (60 FR 28494-28500). The FAR revisions include provisions for purchasing recycled content products.

The FAR revisions:

1. Specify that agencies should prepare product descriptions to achieve maximum practicable use of recovered material, other materials that are environmentally preferable, and energy-efficient products.
2. Require agencies to establish affirmative procurement programs for purchasing EPA-designated items, as required by RCRA section 6002.
3. Encourage contractors to maximize the use of double-sided copying on recycled content paper when submitting written acquisition documents.
4. Require all procurement of EPA-designated items to meet the EPA's recommended minimum standards for recovered material content, unless otherwise approved.
5. Require new certification and oversight requirements for new contracts. Included is an annual certification of EPA-designated items used or provided and dollar value to be provided to and reported by an agency designated office.
6. Provide that new contracts for operating government owned-contractor operated (GOCO) facilities must require contractors to establish cost-effective waste reduction programs.
7. Require architect-engineering services contractors to specify the use of products containing recovered materials to the maximum extent practicable.
8. Call for agency programs favoring the acquisition of environmentally preferable and energy-efficient products and services.

## **Procurement Policy Letters**

A Compilation of Policies Issued  
by the Office of Federal Procurement Policy  
OFPP Pamphlet No. 6 (Revised)  
Fourth Edition  
December 1992

(Electronic Version - Updated March 1998)

Executive Office of the President  
Office of Management and Budget

### **Forward**

Public Law 93-400, "The Office of Federal Procurement Policy Act", as amended, created the Office of Federal Procurement Policy (OFPP) in 1974 and placed it in the Office of Management and Budget (OMB). The OFPP was created, among other purposes, to provide Government-wide procurement policies "...which shall be followed by Executive agencies..." in the procurement activities.

In the years since it was established, the OFPP has developed and issued many policies which have had — and continue to have — a far-reaching impact upon the Federal Government's

nearly \$200 billion annual procurement program. Those policies have taken the form of OFPP Policy Letters or OMB Circulars.

This volume is a compilation of OFPP Policy Letters issued since 1976 which are in effect as of December 31, 1992. They are arranged sequentially by year of issue. Since Policy Letters are modified, rescinded or newly issued periodically, this compilation may soon become outdated. Meanwhile, it serves as a useful medium for making the

Federal procurement community aware of the nature and scope of OFPP's policy activities.

Copies of this volume and individual Policy Letters, as well as OMB Circulars, are available from: The Publications Office, Room 2200, Executive Office of the President, 725 17th Street, N.W., Washington, D.C. 20503 [Telephone: (202) 395-7332]. Questions or comments on this volume or its contents may be addressed to the Office of Federal Procurement Policy, Room 9013 New Executive Office building, Washington, DC 20503 [Telephone: (202) 395-6803].

## Procurement Policy Letters of the Office of Federal Procurement Policy

Number	Title	Date of Issuance	Page
77-2	Section 502(C) of P.L. 95-89 August 4, 1977	9/30/77	5
78-2	Preventing "Wage Busting" for Professional: Procedures for Evaluating Contractor Proposals for Service Contracts	3/29/78	7
78-3	Requests for Disclosure of Contractor-Supplied Information Obtained in the Course of a Procurement	3/30/78	13
78-4	Field Contract Support Cross-Servicing Program	8/8/78	17
79-1	Implementation of Section 15(k) of the Small Business Act, as Amended: Office of Small and Disadvantaged Business Utilization	3/7/79	21
79-2	Board of Contract Appeals: Position Allocation Pursuant to P.L. 95-563	6/26/79	25
80-1	P.L. 95-507, Section 211, Subcontracting: Agency Coordination with the Small Business Administration Resident Procurement Center Representatives	1/24/80	43
80-2	Regulatory Guidance on Section 211 of P.L. 95-507,45 as amended by Supplement No. 1	5/29/81	45
80-2	Regulatory Guidance on Section 211 of P.L. 95-507	4/29/80	49
80-3	Regulatory Guidance on P.L. 95-563, the Contract Disputes Act of 1978	4/29/80	67
80-4	Women's Business Enterprise Program	4/29/80	75
80-6	Regulatory Guidance on Section 221 of P.L. 95-507	7/22/80	79
80-8	Establishment of Procurement Data Reporting Requirements to Comply with P.L. 96-39, as amended by Transmittal Memoranda Nos. 1, 2 & 3	12/11/80	83
81-1	Procurement Procedures, Advance Procurement Planning, and Review of End-of-Year Purchases	8/13/81	99
81-2	Sup1 Policy Guidance for the Labor Surplus Area Programs, as amended by Supplement No. 1	12/23/81	101



<b>Number</b>	<b>Title</b>	<b>Date of Issuance</b>	<b>Page</b>
81-2	Policy Guidance for the Labor Surplus Area Programs	5/29/81	103
82-1	Policy Guidance Concerning Government-Wide Debarment, Suspension, & Ineligibility	6/24/82	107
83-1	Withholding of Funds from Construction Contract Progress Payments	5/6/83	123
83-2	Publicizing the Development of Procurement Policies and Regulations	5/25/83	125
83-3	Procurement of Architect Engineer Services	6/8/83	127
84-1	Federally Funded Research and Development Centers (FFRDCs)	4/4/84	129
85-1	Federal Acquisition Regulation System	8/19/85	137
89-1	Conflict of Interest Policies Applicable to Consultants	12/8/89	141
91-1	Government-wide Small Business and Small Disadvantaged Business Goals for Procurement Contracts	3/11/91	147
91-2	Service Contracting	4/9/91	151
91-3	Reporting Nonconforming Products	4/9/91	155
91-4	Letters of Credit	11/8/91	161
92-1	Inherently Governmental Functions	9/23/92	169
92-3	Procurement Professionalism Program Policy - Training for Contracting Personnel	6/24/92	195
92-4	Procurement of Environmentally-Sound and Energy-Efficient Products and Services	11/2/92	203
92-5	Past Performance Information	12/30/92	211
93-1	Management Oversight of Service Contracting	05/18/94	
95-1	Subcontracting Plans for Companies Supplying Commercial Items	10/28/95	
97-01	Procurement System Education, Training and Experience Requirements for Acquisition Personnel	09/12/97	

## Rescinded or Superseded OFPP Policy Letters

<b>Number</b>	<b>Title</b>	<b>Date of Issuance</b>
76-1	"Federal Procurement Policy Concerning Energy Conservation" rescinded by Policy Letter 92-4	11/2/92
77-1	"Procurement of Products that Contain Recycled Material", rescinded by Policy Letter 92-4	11/2/92
78-1	"Increased Minority Business Participation in Advertising Contracts," superseded following issuance of the Federal Acquisition Regulation	4/1/84
78-5	"Contracting for Motion Picture Productions", rescinded by Policy Letter 79-4	11/28/79
78-6	"Wage and Price Standards for Federal Contractors", rescinded by Memorandum	2/5/81
79-3	"Goal Setting", rescinded by Memorandum	7/30/80
79-4	Contracting for Motion Picture Productions and Videotape Productions	11/28/79
<b>Number</b>	<b>Title</b>	<b>Date of Issuance</b>
80-5	"Federal Acquisition Regulation System; Other Procurement Rules and Regulations", rescinded by Policy Letter 85-1	8/19/85
80-7	"Policies for Establishing Profit or Fee Prenegotiation Objectives", superseded following issuance of the Federal Acquisition Regulation	4/1/84
84-2	"Noncompetitive Procurement Procedures", rescinded by Rescission Memorandum	8/15/84

Electronic Version of OFPP Procurement Policy Letters Last Updated: March 16, 1998



# Appendix G

## Description of the Model Affirmative Procurement Program

**T**he OFEE model Affirmative Procurement Program is a user-friendly “boiler plate” document which is easily expandable to accommodate additional items. It references the sources for components and sections that go beyond the minimum requirements as specified by RCRA 6002 and/or the Executive Order, making the final Plan more comprehensive. The following sections are recommended:

Cover Page	• Promotion Program	Specification Control
Table of Contents	• Procedures for Vendor Estimation, Certification	Awards
Applicability	• Annual Review and Monitoring Program	Goals
Motivational Factors	Waivers	Waste Prevention Opportunities
Affirmative Procurement Program	Reports	Various Appendices (glossary, data collection forms, acronyms, etc.)
• Preference Program		

An electronic copy of this Model may be obtained by calling the Office of the Federal Environmental Executive or on our website [www.ofee.gov](http://www.ofee.gov). Also, the model is available through EPA’s EnviroSense on the World Wide Web (Internet): <http://es.inel.gov>, Access to the Internet and World Wide Web navigational software such as Mosaic TM is necessary.



# Appendix H

## Frequently Asked Questions About RCRA (Resource Conservation and Recovery Act) Section 6002 and EPA's Comprehensive Procurement Guideline

### What Does RCRA Section 6002 Require?

RCRA section 6002 establishes a program to promote government purchases of products made with recovered materials. The purpose of the program is to use the purchasing power of Federal, state, and local governments to develop markets for products made from materials recovered from the solid waste stream. To achieve this objective, section 6002 imposes requirements on EPA, the Office of Federal Procurement Policy (OFPP), Federal specification-writing agencies, and procuring agencies.

**EPA** - EPA is required to designate products that are or can be made from recovered materials. EPA is also required to recommend practices, including recovered materials content levels, to assist procuring agencies in purchasing the items EPA designates.

**OFPP** - OFPP is required to implement the RCRA section 6002 requirements and to report to Congress every two years on Federal compliance with these requirements.

**Federal specification-writing agencies** - By May 3, 1986, these agencies were required to examine their specifications and eliminate requirements for products manufactured from virgin materials or that prohibit use of recovered materials. This requirement pertains to Executive agencies purchasing \$10,000 or more of a EPA designated item in the current or previous fiscal year.

**Procuring agencies** - Once EPA designates an item, these agencies have one year to (1) revise their specifications for the designated item to allow procurement of the item containing recovered materials to the maximum extent practicable and (2) develop affirmative procurement programs (APPs) for the designated item. The APPs must have four elements - a preference program, a promotion program, mechanisms for obtaining estimates and certifications of recovered materials content and for verification, and an annual review of the program. Section 6002 conditions the requirement to purchase products containing recovered materials on four factors: the effect of purchases of products made with recovered materials on competition, and the performance, price, and availability of these products.

### Who is Required to Comply?

To answer this question, three additional questions need to be answered.

#### 1. Are you a procuring agency?

RCRA section 1004(17) defines a procuring agency as "any Federal agency, or any State agency or agency of a political subdivision of a State which is using appropriated Federal funds for such procurement, or any person contracting with any such agency with respect to work performed under such contract." Thus, Federal agencies are always procuring agencies. A state

or local agency is a procuring agency when it uses appropriated Federal funds for a procurement. A contractor is a procuring agency when it is contracting with a Federal agency or state or local agency which is using appropriated Federal funds for a procurement.

NOTE: Only government agencies and their contractors are potentially “procuring agencies” for purposes of RCRA section 6002. Private party recipients of Federal loans, grants, or funds under cooperative agreements are not procuring agencies.

**2. Are you purchasing or acquiring a designated item?**

**3. Are you purchasing \$10,000 or more of a designated item or did you purchase at least \$10,000 of a designated item in the preceding fiscal year?**

RCRA section 6002(a) requires that “a procuring agency shall comply with the requirements set forth in this section and any regulations issued under this section, with respect to any purchase or acquisition of a procurement item where the purchase price of the item exceeds \$10,000 or where the quantity of such items or of functionally equivalent items purchased or acquired in the course of the preceding fiscal year was \$10,000 or more.”

The \$10,000 threshold applies to each procuring agency as a whole. If a procuring agency has determined that it purchased \$10,000 worth of a designated item or functionally equivalent items during the preceding fiscal year, it is subject to RCRA section 6002. If so, the requirements apply to all purchases of these items occurring in the current fiscal year. If the procuring agency did not procure \$10,000 worth of a designated item in the preceding fiscal year, it is not subject to RCRA section 6002, unless, in the current fiscal year, it purchases \$10,000 or more of a designated item in a single procurement action. If so, the requirements apply to the single procurement and to all subsequent purchases of the designated item made during the current fiscal year.

If the answer was yes to all three of these questions, then RCRA section 6002 applies.

## **How Does RCRA Section 6002 Apply to Recipients of Federal Assistance Funding?**

### **Does RCRA section 6002 apply to grant and loan recipients?**

Yes. On October 14, 1994, OMB published revisions to Circular A-102 to clarify the circumstances in which RCRA section 6002 applies to state and local recipients of Federal funds.

### **How do state agencies that are grant recipients know when RCRA section 6002 applies to them?**

The Federal grant-administering agencies should include notices and clauses in the grants alerting the state or local agencies about the requirements of section 6002.

### **Does RCRA section 6002 apply to Federal block grant programs?**

Yes. RCRA defines a procuring agency to include state and local agencies that use appropriated Federal money for a procurement. Therefore, RCRA section 6002 would also apply to purchases of designated items made with Federal block grant monies.

### **Does the RCRA section 6002 apply to Farm Home Administration loans? (These loans go to individual home buyers.)**

RCRA defines procuring agency as Federal, state, and local agencies, and contractors with such agencies. Individuals receiving Federal loan funds are neither the agencies described previously nor contractors with such agencies under RCRA section 6002. Therefore, RCRA section 6002 would not apply.

### **Does section 6002 of RCRA apply to Department of Transportation grant programs?**



Yes. The conference committee report from the Hazardous and Solid Waste Amendments of 1984 (Cong. Rec. H 11138 [Oct. 3, 1984]) states:

“To assure the fullest participation by procuring agencies, the Conferees wish to resolve any ambiguity with respect to section 6002’s coverage of the Department of Transportation, in particular the Federal Highway Administration (FHWA). The FHWA is a “procuring agency” under the Solid Waste Disposal Act, and is therefore fully responsible for implementing the guidelines and other requirements of section 6002. It is the intent of Congress that both FHWA’s direct procurement and indirect Federal-aid programs (Federal Highway Trust Fund) be covered by the requirements of section 6002 as amended by this Act. Indirect purchases by the Federal Aviation Administration are also covered under section 6002 in the same manner as is the FHWA. Coverage of the FHWA’s direct and indirect procurement activities under this amendment extends to the review of procurement specifications pursuant to section 6002(d), as amended, in addition to the affirmative procurement program required under this section.”

**If a state receives several hundred thousand dollars in grant monies and three of the state agencies purchase \$10,000, \$7,000, and \$3,000 worth of EPA-designated products, how does RCRA section 6002 apply?**

Keep in mind that the requirements of RCRA section 6002 apply to individual agencies, not to a state as a whole. Only the state agency purchasing \$10,000 worth of a designated product is subject to section 6002.

## **How Does RCRA Section 6002 Apply to Government Contractors?**

**Does RCRA section 6002 apply to Federal, state, and local government contractors? Under what circumstances?**

Yes. RCRA section 6002 applies to the contractor with a Federal agency (or a state or local agency that is a procuring agency under section 6002) when the contractor is purchasing a designated item, is using Federal money to do so, and exceeds the \$10,000 threshold. There is an exception for purchases that are “incidental to” the purposes of the contract, i.e., not the direct result of the funds disbursement. For example, a courier service contractor is not required to purchase re-refined oil and retread tires for its fleets because purchases of these items are incidental to the purpose of the contract.

**Are subcontractors procuring agencies?**

Subcontractors are not procuring agencies. Section 6002 limits contractors subject to its requirement to direct contractors with a Federal agency or state or local “procuring agency.”

**Does RCRA section 6002 apply to services contractors?**

Yes. The definition of “procuring agency” in RCRA includes contractors and does not differentiate between different types of contractors. EPA-designated products could be used in the performance of construction, janitorial, landscape maintenance, vehicle maintenance, housing maintenance, operations & maintenance, and many other types of contracts.

## More Questions About the Applicability of RCRA Section 6002

**Do the RCRA section 6002 requirements apply to micro-purchases (i.e., purchases of \$2,500 or less)?**

Yes. The affirmative procurement requirements apply to purchases below the micro-purchase threshold. However, when making a micro-purchase of an EPA-designated item that does not contain recovered materials, the purchaser is not required to prepare a written justification for not purchasing a recycled content product.

**Do RCRA section 6002 and the affirmative procurement provisions in the Federal Acquisition Regulation apply if an agency does not have a written affirmative procurement program?**

Yes. RCRA sections 6002(c) and (i) require procuring agencies to purchase EPA-designated items containing recovered materials to the maximum extent practicable. Although agencies are also required to establish affirmative procurement programs (APPs), the requirement to purchase recycled content products is not contingent on the preparation of the APPs.

**Because E.O. 13101 revoked E.O. 12783, do agencies have one year from the date of issuance of E.O. 13101 to revise specifications and implement affirmative procurement programs?**

No. The legal requirement to purchase recycled content products was established in RCRA section 6002, not in the Executive Orders. RCRA sections 6002(c) and (i) require Federal agencies to purchase items containing recovered materials within one year after EPA designates these items.

E.O.s 12873 and 13101 changed the process EPA uses to designate items. The two E.O.s also directed Federal agencies to implement the affirmative procurement requirements found in

RCRA. Because these requirements are statutory, however, the “clock” for complying with them did not change when E.O. 13101 revoked E.O. 12873.

**What if an agency bundles products and services in an umbrella contract?**

RCRA section 6002 requires procuring agencies to purchase products containing recovered materials to the maximum extent practicable. Assuming that are not performance, price, or competition constraints, agencies must specify recycled content products in solicitations to purchase EPA-designated products, even if the solicitations includes other products and services. There is no requirement that an agency issue separate solicitations for the EPA-designated products. However, the agency should be prepared to demonstrate that the use of an umbrella contract did not preclude the purchase of recycled products to the maximum extent practicable.

**Is a Federal agency that uses revolving funds a procuring agency?**

As stated above, all Federal agencies are procuring agencies regardless of the funding authority.

**How should large Federal agencies calculate the \$10,000 threshold?**

The \$10,000 threshold applies to each Federal agency as a whole, such as the entire Department of the Interior, rather than individually to its subagencies, such as the National Park Service, the Bureau of Indian Affairs, the Bureau of Mines, or its regional offices.

**Is the \$10,000 threshold measured as purchases of all items covered by a designation, purchases of individual categories of items, or purchases of groups of items?**

It depends on which item is being purchased. EPA’s original procurement guidelines discussed how the Agency interprets “functional equivalence” when determining whether the \$10,000 threshold has been crossed. Within the

paper and paper products category, for example, if an agency purchases, \$4,000 worth of computer paper, \$3,000 worth of Federal forms, and \$3,000 worth of other office papers, these combined purchases achieve the threshold for that designated item, and the agency should develop an affirmative procurement program for all paper and paper products containing recovered materials. Similarly, agencies should combine the value of purchases of all types of oil, tires, and building insulation products covered by EPA's designations in determining whether they purchase \$10,000 or more worth of these items.

**What if the cost of services cannot be separated from the product value, for example, when concrete is provided and poured by a contractor?**

If the cost of services and the material cost are inextricably linked, the \$10,000 threshold can be applied to the combined cost figure. If a procuring agency contracts for construction of a concrete structure, the agency may include the cost of the services (pouring) with the cost of the product (concrete) when calculating how much is spent on cement and concrete. Alternatively, the agency may devise a method of separating the cost of the concrete product from the cost of pouring and finishing.

**What are the requirements if purchases are made from another Federal agency, such as GSA?**

Many Federal agencies procure paper and paper products through GSA and GPO and purchase other EPA-designated items from GSA. Although both of these agencies have their own affirmative procurement programs, agencies that make purchases through GSA and GPO should still have their own affirmative procurement programs for the products they purchase. However, GSA and GPO will obtain estimates and certifications from vendors. Similarly, the verification requirement is also fulfilled by GSA and GPO.

GPO requests estimates and certifications from its vendors and contractors and verifies that the estimates and certifications are correct. It routinely supplies recycled paper whenever possible, even when not specifically requested by a procuring agency. Any order for printing on off-set, writing, or newsprint stock, which is the bulk of the jobs, is automatically printed on recycled paper that meets the EPA's requirements (if the paper is available).

When GSA supplies products containing recovered content to other agencies, GSA has already obtained and verified estimates and certifications. Nonetheless, agencies are still responsible for monitoring purchases made through other agencies, such as GSA and GPO.

## **How is RCRA Section 6002 Enforced?**

Section 6002 requires the Office of Federal Procurement Policy (OFPP) within the Office of Management and Budget to implement the buy-recycled requirements. OFPP prepares biennial reports to Congress on agency compliance with section 6002.

Section 7002 of RCRA authorizes citizens' suit in Federal district court to seek relief against any person alleged to be in violation of requirements of the Act, including section 6002. The district court has jurisdiction to enforce the buy-recycled requirements.

In addition, E.O. 13101 directs EPA to prepare guidance for use in determining Federal facility compliance with RCRA section 6002 and the related buy-recycled requirements of the E.O. EPA compliance inspectors will use the guidance in conducting Federal facility inspections for compliance with RCRA or when conducting "multi-media" inspections. Where states are authorized to inspect facilities under RCRA, EPA will encourage the states to include inspections for compliance with RCRA section 6002.

### **Will a Federal agency take away grant funding from state and local recipients if recycled products are not purchased?**

Under section 6002, Federal grant administering agencies should inform state and local agency grant recipients about the requirements of section 6002. The grant recipients, in turn, are considered to be “procuring agencies” when they are using appropriated Federal funds to purchase designated items and must purchase these items containing recovered materials to the maximum extent practicable. Section 6002 states that procuring agencies need not purchase recycled products if the products are not reasonably available, are only available at an unreasonable price, or do not meet reasonable performance standards. It is silent, however, regarding penalties for failure to purchase recycled products without these limitations. Therefore, each grant administering agency must determine the appropriate response when a grantee does not comply with section 6002.

### **May vendors sue a municipality under RCRA?**

RCRA section 7002 authorizes citizens to file a civil action in Federal district court against any person alleged to be in violation of a requirement under RCRA. Therefore, a municipality that violates section 6002 may be subject to suit.

### **How Does a Federal Agency Administer Its Affirmative Procurement Program?**

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The answer depends on whether the agency is a purchasing agency or a grant administering agency. A purchasing agency must revise its specifications and implement affirmative procurement programs. A grant administering agency should require that state and local agency grantees and their contractors comply with the affirmative procurement program requirements.

### **What Procurement Methods Can Be Used to Purchase Designated Products?**

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#### **Are any Federal agencies paying a price premium for recycled products?**

The purchase of recycled products under RCRA section 6002 must be consistent with other Federal procurement law, which requires that contracts be awarded to the lowest priced, responsive, responsible bidder. Federal law does not currently authorize agencies to pay a premium price for recycled products. Agencies are using other means of purchasing recycled products that may be higher priced than virgin products, such as soliciting only for recycled content products or using incentives contracts to promote use of recycled products by contractors.

#### **Can a GOCO (Government-Owned/Contractor-Operated) facility develop an alternative program?**

Any affected procuring agency, including contractors, can develop an alternative preference program. For example, a procuring agency can choose to use a case-by-case approach instead of the recovered materials content levels recommended by EPA if the agency is unsure that there will be an adequate supply of the item containing recovered materials. It should be noted, however, that only an alternative preference program can be developed. Section 6002 does not authorize alternatives to the other three components of an affirmative procurement program (i.e., promotion, certification, and annual review and monitoring).

### **Does the Federal Acquisition Regulation Address the RCRA Section 6002 Requirements?**

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On August 22, 1997, a final rule was published amending the Federal Acquisition Regulation



(FAR) to incorporate policies for the acquisition of environmentally preferable and energy-efficient products and services. As part of the amendment, there were significant revisions to the coverage given to RCRA section 6002 requirements. The FAR contains an expanded general section on recovered materials (Subpart 23.4 - Use of Recovered Materials), which includes the RCRA requirement for agencies to establish an affirmative procurement program. The FAR also contains estimate and certification provisions beginning at §52.223. (See also appendix F of this document.)

Further revisions to the FAR to incorporate the provisions of E.O. 13101 are pending.

## **How is the Government Buy-Recycled Program Monitored?**

Executive Order 13101 requires the Federal Environmental Executive to take necessary actions to ensure that agencies comply with the provisions of the Executive Order. In addition, the Executive Order requires Agency Environmental Executives to track agency purchases of EPA-designated items and report these purchases to the Federal Environmental Executive.

As discussed above, RCRA section 6002 requires OFPP to submit biennial reports to Congress on agency compliance with the buy-recycled requirements.

## **Is Further Assistance Available?**

EPA investigates and designates items that can be made with recovered materials. EPA publishes technical background documents discussing the technical and economic feasibility of using recovered materials to manufacture the designated items, performance, and other relevant information. EPA's Recovered Materials Advisory Notices provide recommendations and guidance to procuring agencies in purchasing the designated items in compliance with RCRA. This guidance includes recommended recovered materials content levels and pertinent government, industry or other specifications. EPA also provides fact sheets, by product category, that discuss individual designated products and provide case studies. EPA also publishes lists of manufacturers and vendors of designated products. These publications can be viewed on EPA's CPG web pages at [www.epa.gov/cpg](http://www.epa.gov/cpg).

Additional questions may be addressed to the RCRA/Superfund Hotline at 1-800-424-9346 (703-412-9810 for Washington, DC users).





# Appendix I

## Federal Trade Commission Guides for the Use of Environmental Marketing Claims

### 16 CFR Part 260

- 260.1 Statement of Purpose.
- 260.2 Scope of guides.
- 260.3 Structure of the guides.
- 260.4 Review procedure.
- 260.5 Interpretation and substantiation of environmental marketing claims.
- 260.6 General principles.
- 260.7 Environmental marketing claims.

#### 260.1 Statement of purpose

These guides represent administrative interpretations of laws administered by the Federal Trade Commission for the guidance of the public in conducting its affairs in conformity with legal requirements. These guides specifically address the application of Section 5 of the FTC Act to environmental advertising and marketing practices. They provide the basis for voluntary compliance with such laws by members of industry. Conduct inconsistent with the positions articulated in these guides may result in corrective action by the Commission under Section 5 if, after investigation, the Commission has reason to believe that the behavior falls within the scope of conduct declared unlawful by the statute.

#### 260.2 Scope of guides

These guides apply to environmental claims included in labeling, advertising, promotional materials and all other forms of marketing, whether asserted directly or by implication, through words, symbols, emblems, logos, depictions, product brand names, or through any other means, including marketing through digital or electronic means, such as the Internet or electronic mail. The guides apply to any claim about the environmental attributes of a product, package or service in connection with the sale, offering for sale, or marketing of such product, package or service for personal, family or household use, or for commercial, institutional or industrial use.

Because the guides are not legislative rules under Section 18 of the FTC Act, they are not themselves enforceable regulations, nor do they have the force and effect of law. The guides themselves do not preempt regulation of other Federal agencies or of state and local bodies governing the use of environmental marketing claims. Compliance with Federal, state or local law and regulations concerning such claims, however, will not necessarily preclude Commission law enforcement action under Section 5.

### 260.3 Structure of the guides

The guides are composed of general principles and specific guidance on the use of environmental claims. These general principles and specific guidance are followed by examples that generally address a single deception concern. A given claim may raise issues that are addressed under more than one example and in more than one section of the guides.

In many of the examples, one or more options are presented for qualifying a claim. These options are intended to provide a “safe harbor” for marketers who want certainty about how to make environmental claims. They do not represent the only permissible approaches to qualifying a claim. The examples do not illustrate all possible acceptable claims or disclosures that would be permissible under Section 5. In addition, some of the illustrative disclosures may be appropriate for use on labels but not in print or broadcast advertisements and vice versa. In some instances, the guides indicate within the example in what context or contexts a particular type of disclosure should be considered.

### 260.4 Review procedure

The Commission will review the guides as part of its general program of reviewing all industry guides on an ongoing basis. Parties may petition the Commission to alter or amend these guides in light of substantial new evidence regarding consumer interpretation of a claim or regarding substantiation of a claim. Following review of a petition, the Commission will take such action as it deems appropriate.

### 260.5 Interpretation and substantiation of environmental marketing claims

Section 5 of the FTC Act makes unlawful deceptive acts and practices in or affecting commerce. The Commission’s criteria for determining whether an express or implied claim has been made are enunciated in the Commission’s Policy Statement on Deception.<sup>1</sup> In addition, any party making an express or implied claim that presents an objective assertion about the environmental attribute of a product, package or service must, at the time the claim is made, possess and rely upon a reasonable basis substantiating the claim. A reasonable basis consists of competent and reliable evidence. In the context of environmental marketing claims, such substantiation will often require competent and reliable scientific evidence, defined as tests, analyses, research, studies or other evidence based on the expertise of professionals in the relevant area, conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results. Further guidance on the reasonable basis standard is set forth in the Commission’s 1983 Policy Statement on the Advertising Substantiation Doctrine. 49 FR 30999 (1984); appended to *Thompson Medical Co.*, 104 F.T.C. 648 (1984). The Commission has also taken action in a number of cases involving alleged deceptive or unsubstantiated environmental advertising claims. A current list of environmental marketing cases and/or copies of individual cases can be obtained by calling the FTC Consumer Response Center at (202) 326-2222.

### 260.6 General principles

The following general principles apply to all environmental marketing claims, including, but not limited to, those described in §260.7. In addition, §260.7 contains specific guidance applicable to

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<sup>1</sup>*Cliffdale Associates, Inc.*, 103 F.T.C. 110, at 176, 176 n.7, n.8, Appendix, reprinting letter dated Oct. 14, 1983, from the Commission to The Honorable John D. Dingell, Chairman, Committee on Energy and Commerce, U.S. House of Representatives (1984)(“Deception Statement”).

certain environmental marketing claims. Claims should comport with all relevant provisions of these guides, not simply the provision that seems most directly applicable.

**(a) Qualifications and Disclosures:** The Commission traditionally has held that in order to be effective, any qualifications or disclosures such as those described in these guides should be sufficiently clear, prominent and understandable to prevent deception. Clarity of language, relative type size and proximity to the claim being qualified, and an absence of contrary claims that could undercut effectiveness, will maximize the likelihood that the qualifications and disclosures are appropriately clear and prominent.

**(b) Distinction Between Benefits of Product, Package and Service:** An environmental marketing claim should be presented in a way that makes clear whether the environmental attribute or benefit being asserted refers to the product, the product's packaging, a service or to a portion or component of the product, package or service. In general, if the environmental attribute or benefit applies to all but minor, incidental components of a product or package, the claim need not be qualified to identify that fact. There may be exceptions to this general principle. For example, if an unqualified "recyclable" claim is made and the presence of the incidental component significantly limits the ability to recycle the product, then the claim would be deceptive.

**Example 1:** A box of aluminum foil is labeled with the claim "recyclable," without further elaboration. Unless the type of product, surrounding language, or other context of the phrase establishes whether the claim refers to the foil or the box, the claim is deceptive if any part of either the box or the foil, other than minor, incidental components, cannot be recycled.

**Example 2:** A soft drink bottle is labeled "recycled." The bottle is made entirely from recycled materials, but the bottle cap is not. Because reasonable consumers are likely to consider the bottle cap to be a minor, incidental component of the package, the claim is not deceptive. Similarly, it would not be deceptive to label a shopping bag "recycled" where the bag is made entirely of recycled material but the easily detachable handle, an incidental component, is not.

**(c) Overstatement of Environmental Attribute:** An environmental marketing claim should not be presented in a manner that overstates the environmental attribute or benefit, expressly or by implication. Marketers should avoid implications of significant environmental benefits if the benefit is in fact negligible.

**Example 1:** A package is labeled, "50% more recycled content than before." The manufacturer increased the recycled content of its package from 2 percent recycled material to 3 percent recycled material. Although the claim is technically true, it is likely to convey the false impression that the advertiser has increased significantly the use of recycled material.

**Example 2:** A trash bag is labeled "recyclable" without qualification. Because trash bags will ordinarily not be separated out from other trash at the landfill or incinerator for recycling, they are highly unlikely to be used again for any purpose. Even if the bag is technically capable of being recycled, the claim is deceptive since it asserts an environmental benefit where no significant or meaningful benefit exists.

**Example 3:** A paper grocery sack is labeled "reusable." The sack can be brought back to the store and reused for carrying groceries but will fall apart after two or three reuses, on average. Because reasonable consumers are unlikely to assume that a paper grocery sack is durable, the unqualified claim does not overstate the environmental benefit conveyed to consumers. The claim is

not deceptive and does not need to be qualified to indicate the limited reuse of the sack.

**Example 4:** A package of paper coffee filters is labeled “These filters were made with a chlorine-free bleaching process.” The filters are bleached with a process that releases into the environment a reduced, but still significant, amount of the same harmful byproducts associated with chlorine bleaching. The claim is likely to overstate the product’s benefits because it is likely to be interpreted by consumers to mean that the product’s manufacture does not cause any of the environmental risks posed by chlorine bleaching. A claim, however, that the filters were “bleached with a process that substantially reduces, but does not eliminate, harmful substances associated with chlorine bleaching” would not, if substantiated, overstate the product’s benefits and is unlikely to be deceptive.

**(d) Comparative Claims:** Environmental marketing claims that include a comparative statement should be presented in a manner that makes the basis for the comparison sufficiently clear to avoid consumer deception. In addition, the advertiser should be able to substantiate the comparison.

**Example 1:** An advertiser notes that its shampoo bottle contains “20% more recycled content.” The claim in its context is ambiguous. Depending on contextual factors, it could be a comparison either to the advertiser’s immediately preceding product or to a competitor’s product. The advertiser should clarify the claim to make the basis for comparison clear, for example, by saying “20% more recycled content than our previous package.” Otherwise, the advertiser should be prepared to substantiate whatever comparison is conveyed to reasonable consumers.

**Example 2:** An advertiser claims that “our plastic diaper liner has the most recycled content.” The advertised diaper does have more recycled content, calculated as a percentage of weight, than any other on the market, although it is still well under 100% recycled. Provided the recycled content and the comparative difference between the product and those of competitors are significant and provided the specific comparison can be substantiated, the claim is not deceptive.

**Example 3:** An ad claims that the advertiser’s packaging creates “less waste than the leading national brand.” The advertiser’s source reduction was implemented sometime ago and is supported by a calculation comparing the relative solid waste contributions of the two packages. The advertiser should be able to substantiate that the comparison remains accurate.

## 260.7 Environmental marketing claims

Guidance about the use of environmental marketing claims is set forth below. Each guide is followed by several examples that illustrate, but do not provide an exhaustive list of, claims that do and do not comport with the guides. In each case, the general principles set forth in §260.6 should also be followed.<sup>2</sup>

**(a) General Environmental Benefit Claims:** It is deceptive to misrepresent, directly or by implication, that a product, package or service offers a general environmental benefit. Unqualified general claims of environmental benefit are difficult to interpret, and depending on their context, may convey a wide range of meanings to consumers. In many cases, such claims may convey that the product, package or service has specific and far-reaching environmental benefits. As explained in the Commission’s Advertising Substantiation Statement, every express and material implied claim that the general assertion conveys to reasonable consumers about an objective quality, feature or attribute

<sup>2</sup>These guides do not currently address claims based on a “lifecycle” theory of environmental benefit. The Commission lacks sufficient information on which to base guidance on such claims.

of a product or service must be substantiated. Unless this substantiation duty can be met, broad environmental claims should either be avoided or qualified, as necessary, to prevent deception about the specific nature of the environmental benefit being asserted.

**Example 1:** A brand name like “Eco-Safe” would be deceptive if, in the context of the product so named, it leads consumers to believe that the product has environmental benefits which cannot be substantiated by the manufacturer. The claim would not be deceptive if “Eco-Safe” were followed by clear and prominent qualifying language limiting the safety representation to a particular product attribute for which it could be substantiated, and provided that no other deceptive implications were created by the context.

**Example 2:** A product wrapper is printed with the claim “Environmentally Friendly.” Textual comments on the wrapper explain that the wrapper is “Environmentally Friendly because it was not chlorine bleached, a process that has been shown to create harmful substances.” The wrapper was, in fact, not bleached with chlorine. However, the production of the wrapper now creates and releases to the environment significant quantities of other harmful substances. Since consumers are likely to interpret the “Environmentally Friendly” claim, in combination with the textual explanation, to mean that no significant harmful substances are currently released to the environment, the “Environmentally Friendly” claim would be deceptive.

**Example 3:** A pump spray product is labeled “environmentally safe.” Most of the product’s active ingredients consist of volatile organic compounds (VOCs) that may cause smog by contributing to ground-level ozone formation. The claim is deceptive because, absent further qualification, it is likely to convey to consumers that use of the product will not result in air pollution or other harm to the environment.

**Example 4:** A lawn care pesticide is advertised as “essentially non-toxic” and “practically non-toxic.” Consumers would likely interpret these claims in the context of such a product as applying not only to human health effects but also to the product’s environmental effects. Since the claims would likely convey to consumers that the product does not pose any risk to humans or the environment, if the pesticide in fact poses a significant risk to humans or the environment, the claims would be deceptive.

**Example 5:** A product label contains an environmental seal, either in the form of a globe icon, or a globe icon with only the text “Earth Smart” around it. Either label is likely to convey to consumers that the product is environmentally superior to other products. If the manufacturer cannot substantiate this broad claim, the claim would be deceptive. The claims would not be deceptive if they were accompanied by clear and prominent qualifying language limiting the environmental superiority representation to the particular product attribute or attributes for which they could be substantiated, provided that no other deceptive implications were created by the context.

**Example 6:** A product is advertised as “environmentally preferable.” This claim is likely to convey to consumers that this product is environmentally superior to other products. If the manufacturer cannot substantiate this broad claim, the claim would be deceptive. The claim would not be deceptive if it were accompanied by clear and prominent qualifying language limiting the environmental superiority representation to the particular product attribute or attributes for which it could be substantiated, provided that no other deceptive implications were created by the context.

**(b) Degradable/Biodegradable/Photodegradable:** It is deceptive to misrepresent, directly or by implication, that a product or package is degradable, biodegradable or photodegradable. An unquali-



fied claim that a product or package is degradable, biodegradable or photodegradable should be substantiated by competent and reliable scientific evidence that the entire product or package will completely break down and return to nature, i.e., decompose into elements found in nature within a reasonably short period of time after customary disposal.

Claims of degradability, biodegradability or photodegradability should be qualified to the extent necessary to avoid consumer deception about: (a) the product or package's ability to degrade in the environment where it is customarily disposed; and (b) the rate and extent of degradation.

**Example 1:** A trash bag is marketed as "degradable," with no qualification or other disclosure. The marketer relies on soil burial tests to show that the product will decompose in the presence of water and oxygen. The trash bags are customarily disposed of in incineration facilities or at sanitary landfills that are managed in a way that inhibits degradation by minimizing moisture and oxygen. Degradation will be irrelevant for those trash bags that are incinerated and, for those disposed of in landfills, the marketer does not possess adequate substantiation that the bags will degrade in a reasonably short period of time in a landfill. The claim is therefore deceptive.

**Example 2:** A commercial agricultural plastic mulch film is advertised as "Photodegradable" and qualified with the phrase, "Will break down into small pieces if left uncovered in sunlight." The claim is supported by competent and reliable scientific evidence that the product will break down in a reasonably short period of time after being exposed to sunlight and into sufficiently small pieces to become part of the soil. The qualified claim is not deceptive. Because the claim is qualified to indicate the limited extent of breakdown, the advertiser need not meet the elements for an unqualified photodegradable claim, i.e., that the product will not only break down, but also will decompose into elements found in nature.

**Example 3:** A soap or shampoo product is advertised as "biodegradable," with no qualification or other disclosure. The manufacturer has competent and reliable scientific evidence demonstrating that the product, which is customarily disposed of in sewage systems, will break down and decompose into elements found in nature in a short period of time. The claim is not deceptive.

**Example 4:** A plastic six-pack ring carrier is marked with a small diamond. Many state laws require that plastic six-pack ring carriers degrade if littered, and several state laws also require that the carriers be marked with a small diamond symbol to indicate that they meet performance standards for degradability. The use of the diamond, by itself, does not constitute a claim of degradability.<sup>3</sup>

**(c) Compostable:** It is deceptive to misrepresent, directly or by implication, that a product or package is compostable. A claim that a product or package is compostable should be substantiated by competent and reliable scientific evidence that all the materials in the product or package will break down into, or otherwise become part of, usable compost (e.g., soil-conditioning material, mulch) in a safe and timely manner in an appropriate composting program or facility, or in a home compost pile or device.

Claims of compostability should be qualified to the extent necessary to avoid consumer deception. An unqualified claim may be deceptive if: (1) the package cannot be safely composted in a home

<sup>3</sup>The guides' treatment of unqualified degradable claims is intended to help prevent consumer deception and is not intended to establish performance standards for laws intended to ensure the degradability of products when littered.

compost pile or device; or (2) the claim misleads consumers about the environmental benefit provided when the product is disposed of in a landfill. A claim that a product is compostable in a municipal or institutional composting facility may need to be qualified to the extent necessary to avoid deception about the limited availability of such composting facilities.

**Example 1:** A manufacturer indicates that its unbleached coffee filter is compostable. The unqualified claim is not deceptive provided the manufacturer can substantiate that the filter can be converted safely to usable compost in a timely manner in a home compost pile or device. If this is the case, it is not relevant that no local municipal or institutional composting facilities exist.

**Example 2:** A lawn and leaf bag is labeled as “Compostable in California Municipal Yard Trimmings Composting Facilities.” The bag contains toxic ingredients that are released into the compost material as the bag breaks down. The claim is deceptive if the presence of these toxic ingredients prevents the compost from being usable.

**Example 3:** A manufacturer makes an unqualified claim that its package is compostable. Although municipal or institutional composting facilities exist where the product is sold, the package will not break down into usable compost in a home compost pile or device. To avoid deception, the manufacturer should disclose that the package is not suitable for home composting.

**Example 4:** A nationally marketed lawn and leaf bag is labeled “compostable.” Also printed on the bag is a disclosure that the bag is not designed for use in home compost piles. The bags are in fact composted in yard trimmings composting programs in many communities around the country, but such programs are not available to a substantial majority of consumers or communities where the bag is sold. The claim is deceptive because reasonable consumers living in areas not served by yard trimmings programs may understand the reference to mean that composting facilities accepting the bags are available in their area. To avoid deception, the claim should be qualified to indicate the limited availability of such programs, for example, by stating, “Appropriate facilities may not exist in your area.” Other examples of adequate qualification of the claim include providing the approximate percentage of communities or the population for which such program are available.

**Example 5:** A manufacturer sells a disposable diaper that bears the legend, “This diaper can be composted where solid waste composting facilities exist. There are currently [X number of] solid waste composting facilities across the country.” The claim is not deceptive, assuming that composting facilities are available as claimed and the manufacturer can substantiate that the diaper can be converted safely to usable compost in solid waste composting facilities.

**Example 6:** A manufacturer markets yard trimmings bags only to consumers residing in particular geographic areas served by county yard trimmings composting programs. The bags meet specifications for these programs and are labeled, “Compostable Yard Trimmings Bag for County Composting Programs.” The claim is not deceptive. Because the bags are compostable where they are sold, no qualification is required to indicate the limited availability of composting facilities.

**(d) Recyclable:** It is deceptive to misrepresent, directly or by implication, that a product or package is recyclable. A product or package should not be marketed as recyclable unless it can be collected, separated or otherwise recovered from the solid waste stream for reuse, or in the manufacture or assembly of another package or product, through an established recycling program. Unqualified claims of recyclability for a product or package may be made if the entire product or package, excluding minor incidental components, is recyclable. For products or packages that are made of both recyclable and non-recyclable components, the recyclable claim should be adequately qualified to avoid

consumer deception about which portions or components of the product or package are recyclable.

Claims of recyclability should be qualified to the extent necessary to avoid consumer deception about any limited availability of recycling programs and collection sites. If an incidental component significantly limits the ability to recycle a product or package, a claim of recyclability would be deceptive. A product or package that is made from recyclable material, but, because of its shape, size or some other attribute, is not accepted in recycling programs for such material, should not be marketed as recyclable.<sup>4</sup>

**Example 1:** A packaged product is labeled with an unqualified claim, “recyclable.” It is unclear from the type of product and other context whether the claim refers to the product or its package. The unqualified claim is likely to convey to reasonable consumers that all of both the product and its packaging that remain after normal use of the product, except for minor, incidental components, can be recycled. Unless each such message can be substantiated, the claim should be qualified to indicate what portions are recyclable.

**Example 2:** A nationally marketed 8 oz. plastic cottage-cheese container displays the Society of the Plastics Industry (SPI) code (which consists of a design of arrows in a triangular shape containing a number and abbreviation identifying the component plastic resin) on the front label of the container, in close proximity to the product name and logo. The manufacturer’s conspicuous use of the SPI code in this manner constitutes a recyclability claim. Unless recycling facilities for this container are available to a substantial majority of consumers or communities, the claim should be qualified to disclose the limited availability of recycling programs for the container. If the SPI code, without more, had been placed in an inconspicuous location on the container (e.g., embedded in the bottom of the container) it would not constitute a claim of recyclability.

**Example 3:** A container can be burned in incinerator facilities to produce heat and power. It cannot, however, be recycled into another product or package. Any claim that the container is recyclable would be deceptive.

**Example 4:** A nationally marketed bottle bears the unqualified statement that it is “recyclable.” Collection sites for recycling the material in question are not available to a substantial majority of consumers or communities, although collection sites are established in a significant percentage of communities or available to a significant percentage of the population. The unqualified claim is deceptive because, unless evidence shows otherwise, reasonable consumers living in communities not served by programs may conclude that recycling programs for the material are available in their area. To avoid deception, the claim should be qualified to indicate the limited availability of programs, for example, by stating “This bottle may not be recyclable in you area,” or “Recycling programs for this bottle may not exist in your area.” Other examples of adequate qualifications of the claim include providing the approximate percentage of communities or the population to whom programs are available.

**Example 5:** A paperboard package is marketed nationally and labeled, “Recyclable where facilities exist.” Recycling programs for this package are available in a significant percentage of

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<sup>4</sup>The Mercury-Containing and Rechargeable Battery Management Act establishes uniform national labeling requirements regarding certain types of nickel-cadmium rechargeable and small lead-acid rechargeable batteries to aid in battery collection and recycling. The Battery Act requires, in general, that the batteries must be labeled with the three-chasing-arrows symbol or a comparable recycling symbol, and the statement “Battery Must Be Recycled Or Disposed Of Properly.” 42 U.S.C. 14322(b). Batteries labeled in accordance with this Federal statute are deemed to be in compliance with these guides.

communities or to a significant percentage of the population, but are not available to a substantial majority of consumers. The claim is deceptive because, unless evidence shows otherwise, reasonable consumers living in communities not served by programs that recycle paperboard packaging may understand this phrase to mean that such programs are available in their area. To avoid deception, the claim should be further qualified to indicate the limited availability of programs, for example, by using any of the approaches set forth in Example 4 above.

**Example 6:** A foam polystyrene cup is marketed as follows: “Recyclable in the few communities with facilities for foam polystyrene cups.” Collection sites for recycling the cup have been established in a half-dozen major metropolitan areas. This disclosure illustrates one approach to qualifying a claim adequately to prevent deception about the limited availability of recycling programs where collection facilities are not established in a significant percentage of communities or available to a significant percentage of the population. Other examples of adequate qualification of the claim include providing the number of communities with programs, or the percentage of communities or the population to which programs are available.

**Example 7:** A label claims that the package “includes some recyclable material.” The package is composed of four layers of different materials, bonded together. One of the layers is made from the recyclable material, but the other are not. While programs for recycling this type of material are available to a substantial majority of consumers, only a few of those programs have the capability to separate the recyclable layer from the non-recyclable layers. Even though it is technologically possible to separate the layers, the claim is not adequately qualified to avoid consumer deception. An appropriately qualified claim would be, “includes material recyclable in the few communities that collect multi-layer products.” Other examples of adequate qualification of the claim include providing the number of communities with programs, or the percentage of communities or the population to which programs are available.

**Example 8:** A product is marketed as having a “recyclable” container. The product is distributed and advertised only in Missouri. Collection sites for recycling the container are available to a substantial majority of Missouri residents, but are not yet available nationally. Because programs are generally available where the product is marketed, the unqualified claim does not deceive consumers about the limited availability of recycling programs.

**Example 9:** A manufacturer of one-time use photographic cameras, with dealers in a substantial majority of communities, collects those cameras through all of its dealers. After the exposed film is removed for processing, the manufacturer reconditions the cameras for resale and labels them as follows: “Recyclable through our dealership network.” This claim is not deceptive, even though the cameras are not recyclable through conventional curbside or drop off recycling programs.

**Example 10:** A manufacturer of toner cartridges for laser printers has established a recycling program to recover its cartridges exclusively through its nationwide distribution network. The company advertises its cartridges nationally as “Recyclable. Contact your local dealer for details.” The company’s dealers participating in the recovery program are located in a significant number — but not a substantial majority — of communities. The “recyclable” claim is deceptive unless it contains one of the qualifiers set forth in Example 4. If participating dealers are located in only a few communities, the claim should be qualified as indicated in Example 6.

**Example 11:** An aluminum beverage can bears the statement “Please Recycle.” This

statement is likely to convey to consumers that the package is recyclable. Because collection sites for recycling aluminum beverage cans are available to a substantial majority of consumers or communities, the claim does not need to be qualified to indicate the limited availability of recycling programs.

**(e) Recycled Content:** A recycled content claim may be made only for materials that have been recovered or otherwise diverted from the solid waste stream, either during the manufacturing process (pre-consumer), or after consumer use (post-consumer). To the extent the source of recycled content includes pre-consumer material, the manufacturer or advertiser must have substantiation for concluding that the pre-consumer material would otherwise have entered the solid waste stream. In asserting a recycled content claim, distinctions may be made between pre-consumer and post-consumer materials. Where such distinctions are asserted, any express or implied claim about the specific pre-consumer or post-consumer content of a product or package must be substantiated.

It is deceptive to misrepresent, directly or by implication, that a product or package is made of recycled material, which includes recycled raw material, as well as used,<sup>5</sup> reconditioned and remanufactured components. Unqualified claims of recycled content may be made if the entire product or package, excluding minor incidental components, is made from recycled material. For products or packages that are only partially made of recycled material, a recycled claim should be adequately qualified to avoid consumer deception about the amount, by weight, of recycled content in the finished product or package. Additionally, for products that contain used, reconditioned or remanufactured components, a recycled claim should be adequately qualified to avoid consumer deception about the nature of such components. No such qualification would be necessary in cases where it would be clear to consumers from the context that a product's recycled content consists of used, reconditioned or remanufactured components.

**Example 1:** A manufacturer routinely collects spilled raw material and scraps left over from the original manufacturing process. After a minimal amount of reprocessing, the manufacturer combines the spills and scraps with virgin material for use in further production of the same product. A claim that the product contains recycled material is deceptive since the spills and scraps to which the claim refers are normally reused by industry within the original manufacturing process, and would not normally have entered the waste stream.

**Example 2:** A manufacturer purchases material from a firm that collects discarded material from other manufacturers and resells it. All of the material was diverted from the solid waste stream and is not normally reused by industry within the original manufacturing process. The manufacturer includes the weight of this material in its calculations of the recycled content of its products. A claim of recycled content based on this calculation is not deceptive because, absent the purchase and reuse of this material, it would have entered the waste stream.

**Example 3:** A greeting card is composed 30% by fiber weight of paper collected from consumers after use of a paper product, and 20% by fiber weight of paper that was generated after completion of the paper-making process, diverted from the solid waste stream, and otherwise would not normally have been reused in the original manufacturing process. The marketer of the card may claim either that the product "contains 50% recycled fiber," or may identify the specific pre-consumer and/or post-consumer content by stating, for example, that the product "contains 50% total recycled fiber, including 30% postconsumer."

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<sup>5</sup>The term "used" refers to parts that are not new and that have not undergone any type of remanufacturing and/or reconditioning.



**Example 4:** A paperboard package with 20% recycled fiber by weight is labeled as containing “20% recycled fiber.” Some of the recycled content was composed of material collected from consumers after use of the original product. The rest was composed of overrun newspaper stock never sold to customers. The claim is not deceptive.

**Example 5:** A product in a multi-component package, such as a paperboard box in a shrink-wrapped plastic cover, indicates that it has recycled packaging. The paperboard box is made entirely of recycled material, but the plastic cover is not. The claim is deceptive since, without qualification, it suggests that both components are recycled. A claim limited to the paperboard box would not be deceptive.

**Example 6:** A package is made from layers of foil, plastic, and paper laminated together, although the layers are indistinguishable to consumers. The label claims that “one of the three layers of this package is made of recycled plastic.” The plastic layer is made entirely of recycled plastic. The claim is not deceptive provided the recycled plastic layer constitutes a significant component of the entire package.

**Example 7:** A paper product is labeled as containing “100% recycled fiber.” The claim is not deceptive if the advertiser can substantiate the conclusion that 100% by weight of the fiber in the finished product is recycled.

**Example 8:** A frozen dinner is marketed in a package composed of a cardboard box over a plastic tray. The package bears the legend, “package made from 30% recycled material.” Each packaging component amounts to one-half the weight of the total package. The box is 20% recycled content by weight, while the plastic tray is 40% recycled content by weight. The claim is not deceptive, since the average amount of recycled material is 30%.

**Example 9:** A paper greeting card is labeled as containing 50% recycled fiber. The seller purchases paper stock from several sources and the amount of recycled fiber in the stock provided by each source varies. Because the 50% figure is based on the annual weighted average of recycled material purchased from the sources after accounting for fiber loss during the production process, the claim is permissible.

**Example 10:** A packaged food product is labeled with a three-chasing-arrows symbol without any further explanatory text as to its meaning. By itself, the symbol is likely to convey that the packaging is both “recyclable” and is made entirely from recycled material. Unless both messages can be substantiated, the claim should be qualified as to whether it refers to the package’s recyclability and/or its recycled content. If a “recyclable” claim is being made, the label may need to disclose the limited availability of recycling programs for the package. If a recycled content claim is being made and the packaging is not made entirely from recycled material, the label should disclose the percentage of recycled content.

**Example 11:** A laser printer toner cartridge containing 25% recycled raw materials and 40% reconditioned parts is labeled “65% recycled content; 40% from reconditioned parts.” This claim is not deceptive.

**Example 12:** A store sells both new and used sporting goods. One of the items for sale in the store is a baseball helmet that, although used, is no different in appearance than a brand new item. The helmet bears an unqualified “Recycled” label. This claim is deceptive because, unless evidence shows otherwise, consumers could reasonably believe that the helmet is made of recycled raw

materials, when it is in fact a used item. An acceptable claim would bear a disclosure clearly stating that the helmet is used.

**Example 13:** A manufacturer of home electronics labels its video cassette recorders (“VCRs”) as “40% recycled.” In fact, each VCR contains 40% reconditioned parts. This claim is deceptive because consumers are unlikely to know that the VCR’s recycled content consists of reconditioned parts.

**Example 14:** A dealer of used automotive parts recovers a serviceable engine from a vehicle that has been totaled. Without repairing, rebuilding, remanufacturing, or in any way altering the engine or its components, the dealer attaches a “Recycled” label to the engine, and offers it for resale in its used auto parts store. In this situation, an unqualified recycled content claim is not likely to be deceptive because consumers are likely to understand that the engine is used and has not undergone any rebuilding.

**Example 15:** An automobile parts dealer purchases a transmission that has been recovered from a junked vehicle. Eighty-five percent by weight of the transmission was rebuilt and 15% constitutes new materials. After rebuilding<sup>6</sup> the transmission in accordance with industry practices, the dealer packages it for resale in a box labeled “Rebuilt Transmission,” or “Rebuilt Transmission (85% recycled content from rebuilt parts),” or “Recycled Transmission (85% recycled content from rebuilt parts).” These claims are not likely to be deceptive.

**(f) Source Reduction:** It is deceptive to misrepresent, directly or by implication, that a product or package has been reduced or is lower in weight, volume or toxicity. Source reduction claims should be qualified to the extent necessary to avoid consumer deception about the amount of the source reduction and about the basis for any comparison asserted.

**Example 1:** An ad claims that solid waste created by disposal of the advertiser’s packaging is “now 10% less than our previous package.” The claim is not deceptive if the advertiser has substantiation that shows that disposal of the current package contributes 10% less waste by weight or volume to the solid waste stream when compared with the immediately preceding version of the package.

**Example 2:** An advertiser notes that disposal of its product generates “10% less waste”. The claim is ambiguous. Depending on contextual factors, it could be a comparison either to the immediately preceding product or to a competitor’s product. The “10% less waste” reference is deceptive unless the seller clarifies which comparison is intended and substantiates that comparison, or substantiates both possible interpretations of the claim.

**(g) Refillable:** It is deceptive to misrepresent, directly or by implication, that a package is refillable. An unqualified refillable claim should not be asserted unless a system is provided for: (1) the collection and return of the package for refill; or (2) the later refill of the package by consumers with product subsequently sold in another package. A package should not be marketed with an unqualified refillable claim, if it is up to the consumer to find new ways to refill the package.

<sup>6</sup>The term “rebuilding” means that the dealer dismantled and reconstructed the transmission as necessary, cleaned all of its internal and external parts and eliminated rust and corrosion, restored all impaired, defective or substantially worn parts to a sound condition (or replaced them if necessary), and performed any operations required to put the transmission in sound working condition.

**Example 1:** A container is labeled “refillable x times.” The manufacturer has the capability to refill returned containers and can show that the container will withstand being refilled at least x times. The manufacturer, however, has established no collection program. The unqualified claim is deceptive because there is no means for collection and return of the container to the manufacturer for refill.

**Example 2:** A bottle of fabric softener states that it is in a “handy refillable container.” The manufacturer also sells a large-sized container that indicates that the consumer is expected to use it to refill the smaller container. The manufacturer sells the large-sized container in the same market areas where it sells the small container. The claim is not deceptive because there is a means for consumers to refill the smaller container from larger containers of the same product.

**(h) Ozone Safe and Ozone Friendly:** It is deceptive to misrepresent, directly or by implication, that a product is safe for or “friendly” to the ozone layer or the atmosphere. For example, a claim that a product does not harm the ozone layer is deceptive if the product contains an ozone-depleting substance.

**Example 1:** A product is labeled “ozone friendly.” The claim is deceptive if the product contains any ozone-depleting substance, including those substances listed as Class I or Class II chemicals in Title VI of the Clean Air Act Amendments of 1990, Pub. L. No. 101-549, and others subsequently designated by EPA as ozone-depleting substances. Chemicals that have been listed or designated as Class 1 are chlorofluorocarbons (CFCs), halons, carbon tetrachloride, 1,1,1-trichloroethane, methyl bromide and hydro-bromofluorocarbons (HBFCs). Chemicals that have been listed as Class II are hydrochlorofluorocarbons (HCFCs).

**Example 2:** An aerosol air freshener is labeled “ozone friendly.” Some of the product’s ingredients are volatile organic compounds (VOCs) that may cause smog by contributing to ground-level ozone formation. The claim is likely to convey to consumers that the product is safe for the atmosphere as a whole, and is therefore, deceptive.

**Example 3:** The seller of an aerosol product makes an unqualified claim that its product “Contains no CFCs.” Although the product does not contain CFCs, it does contain HCFC-22, another ozone depleting ingredient. Because the claim “Contains no CFCs” may imply to reasonable consumers that the product does not harm the ozone layer, the claim is deceptive.

**Example 4:** A product is labeled “This product is 95% less damaging to the ozone layer than past formulations that contained CFCs.” The manufacturer has substituted HCFCs for CFC-12, and can substantiate that this substitution will result in 95% less ozone depletion. The qualified comparative claim is not likely to be deceptive.



# Appendix J

## America Recycles Day

**E**very November 15, millions of Americans celebrate “America Recycles Day” (ARD). This national environmental partnership effort is aimed at promoting the social, environmental and economic benefits of recycling and increasing purchases of recycled products, by securing nationwide media attention and promoting public support for recycling and waste reduction. ARD reminds people that setting materials out on the curb is only the first step. To “close the loop” they must also buy products made from recycled materials.

America Recycles Day, Inc., is a unique public/private partnership that brings together government officials, environmental organizations and manufacturing industries with a shared objective of increasing recycling. A National Board of Directors coordinates the theme and supporting materials for distribution to participating state coordinators, who then distribute the materials to local event organizers. Businesses, industry, government agencies, schools, civic, and environmental groups organize special events, education campaigns and incentive programs.

“America Recycles Day is a celebration of the many recycled content products widely available today,” said Remanufacturing Industries Council International President and 1999 America Recycles Day Co-Chair, Scott D. Parker. “When consumers choose to buy recycled, not only do they receive quality products, they also help protect our environment.”

“Thousands of recycled-content products and packaging are available today,” affirmed Federal Environmental Executive Fran McPoland, 1999 Co-Chair of America Recycles Day, Inc. “The theme for America Recycles Day, ‘For Our Children’s Future... Buy Recycled Today,’

emphasizes that recycling is one action that enables each of us to make a contribution. And buying recycled content products is an easy opportunity which can lead our country and children into a new and ‘greener’ millennium.”

In 1998, 43 states and two U.S. territories celebrated more than 5,000 events across the nation to promote the social and economic benefits of recycling. Vice President Al Gore joined the festivities by serving as the Honorary Chairman of the campaign.

Americans generated 209.7 million tons of solid waste in 1996, falling 1.8 million tons from 1995. Through increased availability of recycling programs and consumer support, the national recycling rate has more than doubled to 27 percent over the past decade. To keep these recycling programs alive, consumers must buy products made from, or packaged in, recycled materials.

According to a recent study, 20 percent of Americans had heard of ARD after only one year. Many communities across the country also noted increases in recycling rates shortly after ARD ‘97. For instance: The City of Long Beach, California, reported a 12 percent increase in its recycling rate, an all-time high. Crawford County, Georgia, recorded a 25 percent increase in its recycling program for cardboard, steel cans, and newspaper.

Individuals who pledge to increase their recycling efforts are entered in a national drawing for a new millennium home, built primarily with recycled materials. Every American is invited to support local recycling events and buy recycled products. By sending a pledge card between September 15, 2000 and November 20, 2000, you could win the “American Green Dream House.” In 2000, you

could also win a trip for four to Walt Disney World, Orlando, Florida, and other prizes.

If you would like to learn more about America Recycles Day; hold an event in your business,

organization or school; find out about activities in your state; visit the ARD Web site: [americarecyclesday.org](http://americarecyclesday.org) or call: 703-683-1605.

## **Ten Great Ways to Celebrate America Recycles Day**

1. Commit to “Buy Recycled” at home and encourage the use of recycled-content products at your office.
2. Organize a display of recycled-content products at your church, office, school or retail shopping center.
3. Ask local retailers to stock more products made from recycled materials.
4. Look for “safe bets” that always have recycled content such as: steel, aluminum, glass, paper egg cartons and cereal boxes.
5. Purchase remanufactured products and equipment like toner cartridges, office furniture, auto parts, re-refined oil or retreaded tires.
6. Teach children why, “If you’re not buying recycled, you’re not really recycling.” Organize a tour of a local facility that manufactures recycled-content products.
7. Purchase products you know can be recycled in your community.
8. If one of your favorite products does not have recycled content, call the manufacturer and ask them to change it.
9. Read product labels and look for the highest percentage of recycled content, specially post-consumer content.
10. Act by buying a recycled product today!





# Appendix K

## Federal Facilities Compliance

### Guidance on Conducting Inspections of Federal Facilities for Compliance with Section 6002 of the Resource Conservation and Recovery Act

May 12, 1999

**T**his guidance is intended to assist EPA and State compliance inspectors determine compliance with EPA guidelines on procuring recycled content products by all Federal facilities. To promote compliance with the guidelines, this guidance is being made available to Federal facilities.

**INTRODUCTION:** On September 14, 1998, President Clinton signed Executive Order 13101: "Greening the Government Through Waste Prevention, Recycling and Federal

Acquisition." Section 403 of the Order directed that EPA develop guidance for inspections of Federal facilities for compliance with the buy-recycled program established under section 6002 of the Resource Conservation and Recovery Act (RCRA). The guidance is to be used by EPA whenever the Agency conducts RCRA inspections or multi-media regulatory compliance inspections where RCRA compliance is a component of the inspection. The guidance may also be used by States authorized to conduct inspections under RCRA.

#### EXECUTIVE ORDER 13101

#### GREENING THE GOVERNMENT THROUGH WASTE PREVENTION, RECYCLING, AND FEDERAL ACQUISITION

Sec. 403. Federal Facility Compliance.

(a) Within 6 months of the date of this order, the Administrator of the EPA shall, in consultation with the Federal Environmental Executive, prepare guidance for use in determining Federal facility compliance with section 6002 of RCRA and the related requirements of this order.

(b) EPA inspections of Federal facilities conducted pursuant to RCRA and the Federal Facility Compliance Act and EPA "multi-media" inspections carried out at Federal facilities will include, where appropriate, evaluation of facility compliance with section 6002 of RCRA and any implementing guidance.

(c) Where inspections of Federal facilities are carried out by authorized States pursuant to RCRA and the Federal Facility Compliance Act, the Administrator of the EPA will encourage those States to include evaluation of facility compliance with section 6002 of RCRA in light of EPA guidance prepared pursuant to subsection (a), where appropriate, similar to inspections performed by the EPA. The EPA may provide information and technical assistance to the States to enable them to include such considerations in their inspection.

(d) The EPA shall report annually to the Federal Environmental Executive on the results of inspections performed by the EPA to determine Federal facility compliance with section 6002 of RCRA not later than February 1st for those inspections conducted during the previous fiscal year.

**INSPECTION FOCUS:** EPA has determined that for the first year of implementation, inspection activities carried out pursuant to section 403 of the Order should focus primarily on information collection. EPA compliance assistance programs will use this information to promote Federal facility awareness of, and compliance with, RCRA section 6002 requirements. To ensure Federal facility compliance with RCRA section 6002 in the future, EPA's response to non-compliance with that section may change.

**ENFORCEMENT:** Violations of RCRA section 6002 by Federal agencies do not give rise to administrative penalty actions or orders under RCRA's enforcement authorities. This conclusion does not, however, limit EPA's authority to issue notices of violation (NOV) or enter into compliance agreements at Federal facilities for violations of RCRA section 6002 that are discovered through the inspections mandated by Executive Order 13101. Moreover, citizens may take action pursuant to RCRA section 7002 for violations of RCRA 6002 requirements.

**BACKGROUND:** When the Resource Conservation and Recovery Act (RCRA) was

enacted in 1976, Congress stated that objectives of the statute included the conservation of resources through recycling. Recognizing that recycling works best if there are markets for the materials collected, Congress directed the Federal government to employ its purchasing power to help create and sustain those markets by buying products manufactured with the collected materials. Section 6002 of RCRA establishes the Federal program that directs Federal purchasing decisions for recycled content products.

**BUY RECYCLED PROGRAM:** Section 6002 of RCRA establishes a Federal buy-recycled program. RCRA section 6002(e) requires EPA to: (1) designate items that are or can be made with recovered materials and (2) prepare guidelines to assist procuring agencies in complying with affirmative procurement requirements set forth in subsections (c), (d), and (i) of section 6002. Once EPA has formally designated items, section 6002 requires that any procuring agency using appropriated Federal funds must purchase those items composed of the highest percentage of recovered materials practicable.

### RCRA §6002: Federal Procurement

(c)(1) ... each procuring agency which procures any items designated in such guidelines shall procure such items composed of the highest percentage of recovered materials practicable ....

(e) The Administrator shall ... prepare ... guidelines for the use of procuring agencies .... Such guidelines shall designate those items which are or can be produced with recovered materials ....

**PROCURING AGENCIES:** For the purposes of RCRA section 6002, procuring agencies include the following:

1. any Federal agency,
2. any State or local agencies using appropriated Federal funds for a procurement, or
3. any contractors with these agencies (with respect to work performed under the contract).

The requirements of RCRA section 6002 apply to such procuring agencies only when procuring designated items where the price of the item exceeds \$10,000 or the quantity of the item purchased in the previous year exceeded \$10,000. The \$10,000 threshold applies to all purchases made by an entire agency rather than regional or local offices (e.g., Department of the Interior, Department of Defense, etc). Most Federal agencies exceed the \$10,000 threshold for EPA designated items.<sup>1</sup>

**CPG ITEMS:** The Comprehensive Procurement Guidelines (CPG) designate those items that must contain recycled content when purchased by Federal agencies. The CPG acknowledges, however, that specific circumstances may arise that preclude the purchase of products made with recovered materials.

Designated items that do not contain recovered materials may be purchased if it is determined that:

1. the price of a given designated item made with recovered materials is unreasonably high,
2. there is inadequate competition (not enough sources of supply),
3. unusual and unreasonable delays would result from obtaining the item, or
4. it does not meet the agency's reasonable performance specifications.

**... for the EPA-designated guideline items, ... and for all future designated guideline items, agencies shall ensure that their affirmative procurement programs require 100 percent of their purchases of products to meet or exceed the EPA guideline unless written justification is provided that a product is not available competitively within a reasonable time frame, does not meet appropriate performance standards, or is only available at an unreasonable price. (EO 13101, Sec. 402 (c)).**

**DESIGNATED ITEMS:** To date, the EPA Comprehensive Procurement Guidelines (CPG) program has designated 36 products in 8 product categories. In 1998, EPA proposed to designate an additional 19 products; EPA expects those products to be formally listed in June of 1999. EPA research indicates that the designated items are of high quality, are widely available, and cost-competitive with products made from virgin materials. Moreover, Government procurement of these products will create markets for a variety of recycled materials that make up a large part of the municipal waste stream, including various types of paper, used tires, oil and antifreeze, plastics, steel, and yard debris. Purchase of the guideline items also cre-

ates markets for non-hazardous industrial wastes that are generated in large quantities, such as coal fly ash and blast furnace slag.

A key component of the CPG program is EPA's list of designated products and the accompanying recycled content recommendations. EPA has already designated or has proposed designating the products listed below. EPA has also published final or proposed recycled content recommendations for each item. All proposals, designations and recommendations are published in the Federal Register. Additional information on the CPG designated items and content recommendations can be found on the World Wide Web at

**<http://www.epa.gov/cpg/products.htm>**

<sup>1</sup> Section 403 of Executive Order 13101 states that inspections carried out under the Order 13101 are to be conducted at Federal facilities; state and local agencies using appropriated funds will not be included in these inspections. Government owned, contractor operated (GOCO) facilities are considered Federal facilities for the purposes of this guidance.

## EPA Designated and Proposed CPG Items

### CONSTRUCTION PRODUCTS

Designated:

- Building insulation products
- Polyester carpet
- Cement and concrete containing:
  - Coal fly ash
  - Ground granulated blast furnace slag
- Consolidated and reprocessed latex paint
- Floor tiles
- Laminated paperboard
- Patio blocks
- Shower and restroom dividers/partitions
- Structural fiberboard

Proposed:

- Carpet backing
- Carpet cushion
- Flowable fill
- Railroad grade crossings/surfaces

### LANDSCAPING PRODUCTS

Designated:

- Garden and soaker hoses
- Hydraulic mulch
- Lawn and garden edging
- Yard trimmings compost

Proposed:

- Food waste compost
- Landscaping timbers and posts (plastic lumber)

## NON-PAPER OFFICE PRODUCTS

### Designated:

- Binders (paper, plastic covered)
- Office recycling containers
- Office waste receptacles
- Plastic desktop accessories
- Plastic envelopes
- Plastic trash bags
- Printer ribbons
- Toner cartridges

### Proposed:

- Plastic binders (solid)
- Plastic clipboards
- Plastic clip portfolios
- Plastic file folders
- Plastic presentation folders

## PAPER AND PAPER PRODUCTS

### Designated:

- Commercial/industrial sanitary tissue products
- Miscellaneous papers
- Newsprint
- Paperboard and packaging products
- Printing and writing papers

### Proposed:

- None at this time.

## PARK AND RECREATION PRODUCTS

### Designated:

- Plastic fencing
- Playground surfaces
- Running tracks

### Proposed:

- Park and recreational furniture
- Playground equipment



### TRANSPORTATION PRODUCTS

Designated:

- Channelizers
- Delineators
- Flexible delineators
- Parking stops
- Traffic barricades
- Traffic cones

Proposed:

- None at this time.

### VEHICULAR PRODUCTS

Designated:

- Engine coolants
- Re-refined lubricating oils
- Retread tires

Proposed:

- None at this time.

### MISCELLANEOUS PRODUCTS

Designated:

- Pallets

Proposed:

- Sorbents
- Awards and plaques
- Industrial drums
- Mats
- Signage
- Strapping and stretch wrap

**RECOVERED MATERIAL RECOMMENDATIONS:** For each of the designated and proposed products, EPA has issued a Recovered Materials Advisory Notice (RMAN) which establishes the recommended recycled content level for a given product. In most circumstances, minimum content recommendations are provided for both postconsumer recycled content and recovered material levels. “Postconsumer material” means a material or finished product that has served its intended use and has been diverted or recovered from

waste destined for disposal, having completed its life as a consumer item. “Postconsumer material” is part of the broader category of “recovered material.” “Recovered materials” mean waste materials and byproducts that have been recovered or diverted from solid waste, but such term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

Exhibit 1 below provides an example of such an RMAN for the product “Building Insulation.”

## Exhibit 1: EPA’s Recommended Recovered Materials Content Levels for Building Insulation

Product	Material	Postconsumer Content (%)	Total Recovered Materials Content (%)
Rock Wool	Slag	—	75
Fiberglass	Glass Cullet	—	20-25
Cellulose Loose-Fill and Spray-On	Postconsumer Paper	75	75
Perlite Composite Board	Postconsumer Paper	23	23
Plastic Rigid Foam, Polyisocyanurate/ Polyurethane:			
Rigid Foam			
Foam-in-Place	—	—	9
Glass Fiber	—	—	5
Reinforced	—	—	6
Phenolic Rigid Foam	—	—	5
Plastic, Non-Woven Batt	Recovered and/or Postconsumer Plastics	—	100

In other circumstances, where specific recycled material content is not appropriate or where on-site management of the designated items may be more effective, the RMAN may indicate a

preference for an activity over a given level of recovered material. An example of this type of RMAN, for engine coolants, is presented in Exhibit 2 below.

## **Exhibit 2: Recommended Recovered Materials Content Ranges - Coolants:**

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EPA recommends that procuring agencies whose vehicles are serviced by a motor pool or vehicle maintenance facility establish a program for engine coolant reclamation and reuse that consists of either reclaiming the spent engine coolants onsite for use in the agencies' vehicles or establishing a service contract for reclamation of the agencies' spent engine coolant for use in the agencies' vehicles.

EPA also recommends that procuring agencies request reclaimed engine coolant when having their vehicles serviced at commercial service centers. Additionally, EPA recommends that agencies purchase reclaimed engine coolant when making direct purchases of this item, such as when necessary to make up for losses due to leakage or spillage.

EPA does not recommend one type of engine coolant over another. EPA recommends, however, that procuring agencies purchase engine coolant containing only one base chemical, typically ethylene glycol or propylene glycol, to prevent the commingling of incompatible types of engine coolant.

To facilitate ease of implementation, the EPA RMAN documents also include known product

specifications as well as product information such as product manufacturers and suppliers.

## INSPECTION GUIDANCE:

During initial implementation of the requirement for EPA inspections at Federal facilities for compliance with RCRA 6002, EPA has elected to focus on field level awareness of the RCRA 6002 requirements. As such, inspections at Federal facilities pursuant to RCRA and the Federal Facility Compliance Act and EPA “multi-media” inspections carried out at Federal facilities, will include;

- 1) distribution of a questionnaire to the facility and,
- 2) inspection of the facility motor vehicle maintenance activities (where such activities exist) for compliance with RCRA 6002 .

Motor vehicle maintenance activities were selected for this effort due to the:

- 1) common presence of such activities at a broad range of Federal facilities,
- 2) significant awareness and availability of products and services that meet the EPA guide lines for vehicular products and,
- 3) likelihood that RCRA inspections would normally be conducted at these locations.

Inspectors should become familiar with the basic concepts of the CPG program and are requested to briefly outline to facility personnel EPA’s authority for both generating the CPG designations under RCRA section 6002 and conducting inspections under section 403 of E.O. 13101. While the introduction and background to this document provide a brief overview on this topic, inspectors should contact RCRA personnel or the Federal Facility Coordinator in their Region for additional information. Inspectors may also wish to contact the RCRA hotline at 800-424-3323 or search the Internet at <http://www.epa.gov/cpg/products/htm> for further information.

**FACILITY QUESTIONNAIRE:** Attached to this document is a questionnaire including a matrix addressing facility purchase and use of CPG items. The questionnaire and matrix should be provided to the facility environmental manager for response. The questionnaire requests that the manager, in coordination with the facility procurement manager, provide a response to each written question and complete the matrix. Once completed, the entire package is to be mailed to EPA Headquarters by the facility within two weeks of the inspection.

**INSPECTION:** The CPG designation of “Vehicular Products” has been in existence for a lengthy period of time and has received considerable attention in the Federal community. Therefore, during the first year of implementing the inspections called for in E.O. 13101, EPA has

elected to gather information on facility compliance with this aspect of the CPG program.

Inspectors should visit the facility motor vehicle maintenance facility if one exists. If the facility is large and has more than one vehicle maintenance/service facility, the inspector should request visit the largest facility (shop) which deals with cars, trucks and or tactical vehicles. If no motor vehicle maintenance activities occur at the facility, certain questions in the following list may be still relevant.

These recommended inspection protocols and questions are based on the EPA CPG designated items in the category of Vehicular Products and reflects the RMAN for those products. Some additional background questions are also included.

## Inspection Procedures at a Specific Federal Facility Motor Vehicle Maintenance Shop

### RE-REFINED OILS AND LUBRICANTS:

**BACKGROUND:** Re-refined lubricating oils include engine lubrication oil, hydraulic fluids, and gear oils. EPA's designation specifically excludes marine and aviation oils. The recycling of used oil has evolved from simply removing water, insolubles, and dirt, to the more complicated removal of heavy metals, nitrogen, chlorine, and oxygenated compounds. Today, re-refined lubricating oil is subject to the same stringent refining, compounding, and performance standards as virgin oil for use in automotive, heavy-duty diesel, and other internal combustion engines, hydraulic fluids, and gear oils. In addition, extensive laboratory testing and field studies have concluded that re-refined oil is equivalent to virgin oil, passes all prescribed tests, and can even outperform virgin oil. In fact, the three major U.S. automobile manufacturers now recognize that re-refined oil meets the performance criteria in their warranties.

While oil that is removed from vehicles may be disposed of as a waste, it is generally kept for pick-up by a recycling contractor. In some circumstances, the facility may burn the used oil in its boilers to "recover" the heating value of the oil.

**RMAN for RE-REFINED OILS:** Recommended Recovered Materials Content Ranges:

EPA recommends that procuring agencies set their minimum re-refined oil content standard at the highest level of re-refined oil that they determine meets the statutory requirements of RCRA section 6002(c)(1), but no lower than 25 percent re-refined oil.

EPA recommends that procuring agencies review their procurement practices and eliminate those which would inhibit or preclude pro-

curement of lubricating oils containing re-refined oil. For example, procuring agencies should avoid the practice of inviting bids and issuing contracts to do the following:

- Supply a broad range of lubricating oil products on an "all or none" basis.
- Supply lubricating oils for an excessively long period of time.
- Deliver lubricating oils to geographic locations throughout the United States or to an excessively broad geographic area.
- Supply excessively large contract quantities.

The Defense Logistics Agency (DLA) offers re-refined engine lubricating oils for diesel and non-diesel vehicles. DLA also offers closed loop contracts for used oil removal and supply of re-refined oil.

### General questions:

Approximately how many vehicles (including aircraft) are serviced by the shop annually?

What type of vehicles are serviced? (e.g., sedans, trucks, heavy equipment, aircraft)

### Specific questions regarding shop use of oil and lubricants:

What is the estimated annual consumption of oil and lubricants in the shop?

Does the shop use re-refined oil for replacement engine lubricating oils?

Does the shop use re-refined oil for replacement hydraulic fluids?

Does the shop use re-refined oil for replacement gear oils?

If the shop does not use re-refined oils for any or all of the uses, are they aware of the RCRA/CPG requirement to do so?



If they are aware of the requirement to do so yet still do not use re-refined oils, what is their explanation for not using these products?

Does their facility procurement process allow them to purchase re-refined oil? If not, what are the barriers to such purchases?

Do they purchase oil for use in the shop using a government charge card at a commercial vendor (e.g., K-Mart or Sears) outside of the facility?

What is the fate of used oil removed from the facility's vehicles?

If the oil is sent out to a recycler, do they know if it ultimately used for energy recovery or if it is re-refined?

### Shop inspection protocol:

Inspectors should ask to see the oil containers used by the facility. If the shop uses re-refined products, these products can be recognized quickly by the label on the oil container. At some facilities a bulk distribution apparatus that is fed by 55 gallon (or larger) drums of oil is used for shop distribution of engine lubricating oils and hydraulic fluids. Like quart cans and one or five gallon jugs, these drums are generally marked if their contents contain re-refined oil; the bulk distribution may not contain any markings reflecting re-refined content. Inspectors should record and include in their inspection report whether the oil being used for engine lubrication, hydraulic fluid and gear oils is re-refined.

## RETREAD TIRES

**BACKGROUND:** For most cases, retread tires can be driven under the same conditions and at the same speeds as new tires with no loss in safety or comfort. In fact, retread tires have been safely used on school buses, trucks, cars, fire engines, and other emergency vehicles for years. Retreading tires also helps conserve a valuable nonrenewable resource-oil. Every year, retreading saves more than 400 million gallons of oil in North America. Retread tires also help divert

thousands of scrap tires from disposal each year.

**RMAN for RETREAD TIRES:** Recommended Recovered Materials Content Ranges:

EPA recommends that procuring agencies purchase either tire retreading services for worn tires or retread tires as replacement tires. The U.S. Army Tank-automotive Command (TACOM) recently replaced the U.S. General Services Administration (GSA) as manager of tires, although GSA still offers retreading services contracts for medium truck-bus tires. TACOM offers a specification, Qualified Products List, and list of suppliers for retread tires. TACOM also is offering an inspection program to assure the quality of retreading operations.

### Questions regarding shop use of retread tires:

Approximately how many tires does the shop replace annually?

What type(s) of tires does the shop use (i.e., bus, heavy truck, medium truck, light truck, off-road, passenger vehicle)?

Does the shop use retread tires? If so, for which types of tires?

Does the shop have in place an agreement or contract with a "retreader" to retread the facility's tires?

If the shop does not use retread tires for any or all of the uses, are they aware of the RCRA/CPG requirement to do so?

If they are aware of the requirement to do so yet still do not use retread tires, what is their explanation for not using these products?

Does their facility procurement process allow them to purchase retread tires? If not, what are the barriers?

Do they purchase retread tires for use in the shop using a government charge card at a com-

mercial vendor (e.g., Bandag, Goodyear, or other retreader) outside of the facility?

What is the fate of used tires removed from the facility's vehicles?

Shop inspection protocol: Inspectors should be aware that a facility might be using retread truck tires but not retread passenger tires because of availability problems or performance concerns. Inspectors should ask to see replacement tires stored for use by the facility. If the shop uses retread products, these products can generally be recognized quickly by the label on the side of the tire or actual markings remaining from the retread process. If there are vehicles in the shop for repair, inspectors should determine whether the tires on a representative sample of those vehicles are retread tires. Inspectors should record and include in their inspection report whether the tires being used at the facility are retread tires.

## ENGINE COOLANT

**BACKGROUND:** Recycled engine coolants, also known as antifreeze, might actually be purer than virgin coolant because the recycling process reduces the chlorides that come from hard water. Testing shows that, like new coolant, recycled coolant meets nationally recognized performance specifications established by the American Society for Testing Materials (ASTM) and the Society of Automotive Engineers (SAE).

**RMAN for Engine Coolants:** Recommended Recovered Materials Content Ranges:

- EPA recommends that procuring agencies whose vehicles are serviced by a motor pool or vehicle maintenance facility establish a program for engine coolant reclamation and reuse that consists of either reclaiming the spent engine coolants onsite for use in the agencies' vehicles or establishing a service contract for reclamation of the agencies' spent engine coolant for use in the agencies' vehicles.
- EPA also recommends that procuring agencies request reclaimed engine coolant when having their vehicles serviced at commercial service centers. Additionally, EPA recommends that agencies purchase reclaimed engine coolant when making direct purchases of this item, such as when necessary to make up for losses due to leakage or spillage.
- EPA does not recommend one type of engine coolant over another. EPA recommends, however, that procuring agencies purchase engine coolant containing only one base chemical, typically ethylene glycol or propylene glycol, to prevent the commingling of incompatible types of engine coolant.

### Specific questions regarding shop use of engine coolants:

How frequently is the coolant changed in each vehicle?

What is the estimated average annual usage of coolant in this shop?

Does the shop use reclaimed engine coolant?

Does the shop have in place an agreement or contract with a vendor to reclaim the facility's used coolant?

Does the shop have on-site, a reclamation device to reclaim used coolant?

If the shop does not use reclaimed coolant, are they aware of the RCRA/CPG requirement to do so?

If they are aware of the requirement to do so yet still do not use reclaimed coolant, what is their explanation for not using this product?

Does their facility procurement process allow them to purchase reclaimed coolant? If not, what are the barriers to such purchases?

Do they purchase coolant (reclaimed or virgin) for use in the shop using a government charge card at a commercial vendor (e.g., K-Mart or Sears) outside of the facility?

What is the fate of used coolant removed from the facility's vehicles?

**Shop inspection protocol:** Inspectors should ask to see the area where engine coolants are stored for use by the facility. If the shop uses

reclaimed coolant, these products can generally be recognized by the label on container. Inspectors should record and include in their inspection report how storage and disposal of engine coolants is handled at the facility.

## **INSPECTORS:**

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**See attached inspector check list.**

(Attachment 1)

**Please provide attached questionnaire to facility contact.**

(Attachment 2)

## **Inspector Checklist for Inspections of Federal Facilities for Compliance with Section 6002 of the Resource Conservation and Recovery Act**

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**Note to inspectors:** If the facility has no motor vehicle maintenance shop, please provide the Inspection Questionnaire to the facility and note on the top of this form that the facility does not maintain vehicles onsite. If the facility has more than one motor vehicle maintenance shop, please indicate whether the response to questions listed below reflect practices at the entire facility or only the shop(s) inspected.

### **Re-refined oils and lubricants:**

#### *Background questions:*

Approximately how many vehicles are serviced for replacement or addition of oils and lubricants by the shop or facility annually? \_\_\_\_\_

What type of vehicles are serviced? (e.g., sedans, trucks, heavy equipment, aircraft)

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#### *Specific questions regarding use of oil and lubricants:*

What is the estimated annual consumption of oil and lubricants in the shop?

Motor oil: \_\_\_\_\_ gallons

other lubricants: \_\_\_\_\_ gallons

Approximately how frequently is the engine oil replaced in facility vehicles?

Every \_\_\_\_\_ miles or \_\_\_\_\_ months

Does the facility or shop test the oil to determine if replacement is needed?

yes \_\_\_\_\_ no \_\_\_\_\_

Does the shop or facility use re-refined oil for replacement engine lubricating (motor) oils?

yes \_\_\_\_\_ no \_\_\_\_\_

Does the shop or facility use re-refined oil for replacement hydraulic fluids?

yes \_\_\_\_\_ no \_\_\_\_\_

Does the shop or facility use re-refined oil for replacement gear oils?

yes \_\_\_\_\_ no \_\_\_\_\_

Do shop containers containing unused oils and other lubricants indicate these products are re-refined?

Oil - yes \_\_\_\_\_ no \_\_\_\_\_

Hydraulic fluids - yes \_\_\_\_\_ no \_\_\_\_\_

Gear oils - yes \_\_\_\_\_ no \_\_\_\_\_

Is the shop or facility aware of the RCRA/CPG requirement to use re-refined oils or lubricants?

yes \_\_\_\_\_ no \_\_\_\_\_

If the facility is aware of the requirement to use re-refined oils and lubricants and still does not use these products, what is their explanation for not using these products?

Re-refined is too expensive \_\_\_\_\_

Specifications don't allow use of re-refined \_\_\_\_\_

Re-refined is not available \_\_\_\_\_

Other \_\_\_\_\_

Where does the shop or facility purchase oil and other lubricants?

Commercial bulk vendor (e.g., Safety Kleen) yes \_\_\_\_\_ no \_\_\_\_\_

Govt. vendor (e.g., DLA, GSA) yes \_\_\_\_\_ no \_\_\_\_\_

Local commercial vendor (e.g., auto supply) yes \_\_\_\_\_ no \_\_\_\_\_

Other \_\_\_\_\_

Do shop or facility personnel purchase oil or other lubricants for use in the shop using a government charge card or account at a commercial vendor (e.g., K-Mart or Sears) outside of the facility?

Always \_\_\_\_\_ Occasionally \_\_\_\_\_ Never \_\_\_\_\_

What is the fate of used oil removed from the facility's vehicles?

Disposed of as hazardous waste \_\_\_\_\_

Picked up by vendor for "recycling" \_\_\_\_\_

Reused at facility for heating fuel \_\_\_\_\_

Other \_\_\_\_\_

If the oil is collected or sent out to a recycler, is it ultimately used for energy recovery or is it re-refined? Energy recovery \_\_\_\_\_ Re-refined \_\_\_\_\_ Don't know \_\_\_\_\_



**Retread Tires:**

*Background questions:*

Approximately how many tires does the shop or facility replace annually? \_\_\_\_\_

What type(s) of replacement tires does the shop or facility use?

Bus yes \_\_\_\_\_ no \_\_\_\_\_

Heavy truck yes \_\_\_\_\_ no \_\_\_\_\_

Pickup truck yes \_\_\_\_\_ no \_\_\_\_\_

Passenger vehicle yes \_\_\_\_\_ no \_\_\_\_\_

Other \_\_\_\_\_

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Specific questions regarding the use of retread tires:

Does the shop or facility install retread tires on facility vehicles onsite?

yes \_\_\_\_\_ no \_\_\_\_\_

If yes, for which types of tires?

Bus \_\_\_\_\_

Heavy truck \_\_\_\_\_

Pickup truck \_\_\_\_\_

Passenger vehicle \_\_\_\_\_

Other \_\_\_\_\_

Does the shop or facility have in place an agreement or contract with a "retreader" to retread the facility's tires?

yes \_\_\_\_\_ no \_\_\_\_\_

Does the shop or facility use an outside service or vendor for tire replacement?

yes \_\_\_\_\_ no \_\_\_\_\_

If yes, does that vendor offer retread tires?

yes \_\_\_\_\_ no \_\_\_\_\_ don't know \_\_\_\_\_

If yes, does the facility purchase these tires?

yes \_\_\_\_\_ no \_\_\_\_\_

Is the shop or facility aware of the RCRA/CPG requirement to use retread tires?

yes \_\_\_\_\_ no \_\_\_\_\_

If the shop or facility is aware of the requirement to do so yet still do not use retread tires, what is the explanation for not using these products?

Retread tires are "unsafe" \_\_\_\_\_

Specifications don't allow use of retread tires \_\_\_\_\_

Retread tires are not available to the facility \_\_\_\_\_

Other \_\_\_\_\_

Does the shop or facility purchase retread tires for use in the shop using a government charge card or account at a commercial vendor (e.g., Bandag, Goodyear, or other retreader) outside of the facility?

Always \_\_\_\_\_ Occasionally \_\_\_\_\_ Never \_\_\_\_\_

How are used tires disposed of by the facility? \_\_\_\_\_

## Engine Coolants:

### *Background questions:*

Approximately how many vehicles are serviced for replacement or addition of coolants by the shop or facility annually? \_\_\_\_\_

What type of vehicles are serviced? (e.g., sedans, trucks, heavy equipment)

\_\_\_\_\_

### *Specific questions regarding shop or facility use of engine coolants:*

Where does the shop or facility purchase coolant (reclaimed or virgin)?

Commercial bulk vendor (e.g., Safety Kleen)      yes \_\_\_\_\_ no \_\_\_\_\_

Govt vendor (DLA, GSA)      yes \_\_\_\_\_ no \_\_\_\_\_

Local commercial vendor (e.g. auto supply)      yes \_\_\_\_\_ no \_\_\_\_\_

Other \_\_\_\_\_

Approximately how frequently is the coolant changed in each vehicle?

Every \_\_\_\_\_ miles or \_\_\_\_\_ months?

What is the estimated average annual usage of coolant in this shop or facility?

\_\_\_\_\_ gallons

Does the shop or facility use reclaimed engine coolant?      yes \_\_\_\_\_ no \_\_\_\_\_

Does the shop or facility have in place an agreement or contract with a vendor to reclaim the facility's used coolant?      yes \_\_\_\_\_ no \_\_\_\_\_

Does the shop or facility have on-site, a reclamation device to reclaim used coolant?      yes \_\_\_\_\_ no \_\_\_\_\_

Is the shop aware of the RCRA/CPG requirement to use reclaimed coolant?    yes \_\_\_\_\_ no \_\_\_\_\_

If the facility is aware of the requirement to do so yet still do not use reclaimed coolant, what is the explanation for not using this product?

Reclaimed coolant is not effective \_\_\_\_\_

Specifications don't allow use of reclaimed coolant \_\_\_\_\_

Reclaimed coolant is not available to the facility \_\_\_\_\_

Coolant reclamation devices are too costly \_\_\_\_\_

Other \_\_\_\_\_

Does the facility purchase coolant (reclaimed or virgin) for use in the shop using a government charge card at a commercial vendor (e.g., K-Mart or Sears) outside of the facility?

How does the facility dispose of coolant that is removed from facility vehicles (and is not reclaimed)?

\_\_\_\_\_

Please add any additional observations regarding this inspection.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inspectors are requested to forward a copy of this check sheet to the EPA Headquarters E.O. 13101 Program Manager within two weeks of the Federal facility inspection.

The checklist should be mailed to:

US Environmental Protection Agency  
E.O.13101 Program Manager (mail code 2261A)  
401 M Street SW  
Washington, DC 20460

## Facility Questionnaire

**T**his questionnaire is designed to determine the level of your facility's awareness of and compliance with the recycled content procurement requirements of Executive Order 13101, Section 6002 of the Resource Conservation and Recovery Act (RCRA), and the corresponding recommendations and guidance provided by EPA. Please respond to each of the questions and return the questionnaire within two weeks to the address printed at the end of this form.

THIS QUESTIONNAIRE SHOULD BE COMPLETED BY THOSE INDIVIDUALS MOST FAMILIAR WITH THE FACILITY'S ENVIRONMENTAL AND PROCUREMENT PROGRAMS.

List below the name, address and point of contact for your facility and the phone number, email address and position of facility personnel completing this questionnaire.

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PLEASE PROVIDE A RESPONSE TO THE QUESTIONS LISTED BELOW. USE SPACE AT THE END OF THE QUESTIONNAIRE TO PROVIDE CLARIFICATION ON ANY RESPONSE; PLEASE REMEMBER TO INCLUDE THE QUESTION NUMBER WHEN PROVIDING ADDITIONAL INFORMATION OR CLARIFICATION.

1a) Prior to the receipt of this questionnaire, was your facility's environmental manager aware of the requirements in RCRA 6002 for the procurement of EPA designated recycled content products?

yes \_\_\_\_\_ no \_\_\_\_\_

1b) Was your facility's procurement manager aware of the requirements in RCRA 6002 for the procurement of EPA designated recycled content products?

yes \_\_\_\_\_ no \_\_\_\_\_

2) Do you know whether your agency (i.e. Department of Defense, Department of Agriculture) has an Affirmative Procurement Program (APP) established to meet the requirements of E.O. 12873, E.O. 13101 and/or RCRA 6002?

yes \_\_\_\_\_ no \_\_\_\_\_

If yes to #2, do you have a written or electronic copy of the APP for your agency?

yes \_\_\_\_\_ no \_\_\_\_\_

- 3) Does your facility have a policy or program which places a preference on procurement of items containing recycled content or manufactured from recovered materials?

yes \_\_\_\_\_ no \_\_\_\_\_

If yes to #3, is the program formal (e.g., written policy signed by facility manager, director or commander)?

yes \_\_\_\_\_ no \_\_\_\_\_

If yes to #3, does your facility announce and publicize the program to potential and active vendors providing services or materials to the facility?

yes \_\_\_\_\_ no \_\_\_\_\_

If yes, how does your facility accomplish this?

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If yes to #3, how does your facility promote the program to facility and shop level personnel?

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If yes to #3, does your facility monitor and review the effectiveness of the program including the tracking of purchases?

yes \_\_\_\_\_ no \_\_\_\_\_

If yes to #3, which entity or office in your facility (e.g., supply - procurement -shop manager) is responsible for implementing the program? (list as many as appropriate)

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- 4) Does your facility's acquisition and/or procurement planning process investigate and/or emphasize the use of recycled content products?

yes \_\_\_\_\_ no \_\_\_\_\_

If yes to #4, when you return this questionnaire, please provide a copy of a contract or procurement document or procurement policy that reflects the process described.

- 5) Are personnel at your facility who are authorized to use government credit cards for procurement of items for use at your facility informed of the requirement to purchase designated recycled content products?

yes \_\_\_\_\_ no \_\_\_\_\_

- 6) Are records of credit card purchases of designated recycled content items maintained at your facility?

yes \_\_\_\_\_ no \_\_\_\_\_



- 7) Please list a sample of any items you know of that are purchased by your facility which contain recycled content or are manufactured from recovered materials and are not on EPA's list of designated recycled content items (that list is attached in matrix form to this document).
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- 8) Would you like to receive additional information regarding the Comprehensive Procurement Guidelines?

yes \_\_\_\_\_ no \_\_\_\_\_

- 9) Please list any items, issues or questions that are not part of this questionnaire that you feel should be included ?
- 
- 
- 
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*Attached to this document is a matrix listing each of the EPA designated recycled content items. Please complete the matrix by placing an x in the appropriate box beside each item on the matrix.*

EPA will be periodically updating this document and the guidance for inspectors. If you have additional suggestions or comments regarding this document, please add them to this page prior to returning it to EPA.

*Please complete the attached matrix and return it along with this questionnaire and any other supporting documentation to:*

US Environmental Protection Agency  
 E.O. 13101 Program Manager (mail code 2261A)  
 401 M Street SW  
 Washington, DC 20460

Facility personnel are encouraged to contact the RCRA hotline at 800-424-9346 or search the Internet at <http://www.epa.gov/cpg/products/htm> or <http://www.ofee.gov/> for further information about the Federal Government Buy-Recycled Program.

**Comprehensive Procurement Guidelines**

Categories and Designated Items  
**(Note: This table includes proposed CPG items as well as items designated final.)** Please place a check in *all* appropriate boxes.

	Not purchased by facility	Purchased - with no recycled content	Purchased - with recycled content	Purchased through services contractor	Don't know if purchased at facility
<b>VEHICULAR PRODUCTS</b>					
Engine coolants - antifreeze	_____	_____	_____	_____	_____
Re-refined lubricating oils - including motor oil	_____	_____	_____	_____	_____
Retread tires	_____	_____	_____	_____	_____
<b>CONSTRUCTION PRODUCTS</b>					
Building insulation products	_____	_____	_____	_____	_____
Carpet backing	_____	_____	_____	_____	_____
Carpet cushion	_____	_____	_____	_____	_____
Polyester carpet	_____	_____	_____	_____	_____
Cement and concrete	_____	_____	_____	_____	_____
Latex paint	_____	_____	_____	_____	_____
Floor tiles	_____	_____	_____	_____	_____
Laminated paperboard	_____	_____	_____	_____	_____
Patio blocks	_____	_____	_____	_____	_____
Shower and restroom dividers and partitions	_____	_____	_____	_____	_____
Structural fiberboard	_____	_____	_____	_____	_____
Flowable fill	_____	_____	_____	_____	_____
Railroad grade crossings /surfaces	_____	_____	_____	_____	_____
<b>LANDSCAPING PRODUCTS</b>					
Food waste compost	_____	_____	_____	_____	_____
Yard trimmings compost	_____	_____	_____	_____	_____
Landscape timbers and posts	_____	_____	_____	_____	_____
Garden and soaker hoses	_____	_____	_____	_____	_____

<b>Comprehensive Procurement Guidelines</b> Categories and Designated Items	Not purchased by facility	Purchased - with no recycled content	Purchased - with recycled content	Purchased through services contractor	Don't know if purchased at facility
LANDSCAPING PRODUCTS (Continued)					
Hydraulic mulch	_____	_____	_____	_____	_____
Lawn and garden edging	_____	_____	_____	_____	_____
NON-PAPER OFFICE PRODUCTS					
Plastic binders	_____	_____	_____	_____	_____
Plastic clipboards	_____	_____	_____	_____	_____
Plastic clip portfolios	_____	_____	_____	_____	_____
Plastic file folders	_____	_____	_____	_____	_____
Plastic presentation folders	_____	_____	_____	_____	_____
Binders (paper, plastic covered)	_____	_____	_____	_____	_____
Office recycling containers	_____	_____	_____	_____	_____
Office waste receptacles	_____	_____	_____	_____	_____
Plastic desktop accessories	_____	_____	_____	_____	_____
Plastic envelopes	_____	_____	_____	_____	_____
Plastic trash bags	_____	_____	_____	_____	_____
Printer ribbons	_____	_____	_____	_____	_____
Toner cartridges	_____	_____	_____	_____	_____
PAPER AND PAPER PRODUCTS					
Printing and writing papers	_____	_____	_____	_____	_____
Newsprint	_____	_____	_____	_____	_____
Sanitary tissue	_____	_____	_____	_____	_____
Paperboard	_____	_____	_____	_____	_____
Packaging	_____	_____	_____	_____	_____
PARK and RECREATION PRODUCTS					
Playground equipment	_____	_____	_____	_____	_____
Park and recreational furniture	_____	_____	_____	_____	_____

<b>Comprehensive Procurement Guidelines</b> Categories and Designated Items	Not purchased by facility	Purchased - with no recycled content	Purchased - with recycled content	Purchased through services contractor	Don't know if purchased at facility
<b>PARK and RECREATION PRODUCTS (Continued)</b>					
Plastic fencing	_____	_____	_____	_____	_____
Playground surfaces	_____	_____	_____	_____	_____
Running tracks	_____	_____	_____	_____	_____
<b>TRANSPORTATION PRODUCTS</b>					
Channelizers	_____	_____	_____	_____	_____
Flexible delineators	_____	_____	_____	_____	_____
Parking stops	_____	_____	_____	_____	_____
Traffic barricades	_____	_____	_____	_____	_____
Traffic cones	_____	_____	_____	_____	_____
Delineators	_____	_____	_____	_____	_____
<b>MISCELLANEOUS PRODUCTS</b>					
Pallets	_____	_____	_____	_____	_____
Sorbents	_____	_____	_____	_____	_____
Awards and plaques	_____	_____	_____	_____	_____
Industrial drums	_____	_____	_____	_____	_____
Mats	_____	_____	_____	_____	_____
Signage	_____	_____	_____	_____	_____
Strapping and stretch wrap	_____	_____	_____	_____	_____

If you responded yes to any items in column three, "Purchased with recycled content," please list below those items purchased with recycled content at or above the EPA recommended level.

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# Appendix L

## Federal Register: Proposed Procedures for Submission of Biobased Products for Listing by USDA

[Federal Register: August 13, 1999 (Volume 64, Number 156)] [Notices] [Page 44185-44193]

From the Federal Register Online via GPO Access [wais.access.gpo.gov]

[DOCID:fr13au99-40]

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### DEPARTMENT OF AGRICULTURE

Office of the Secretary

Procedures for Submission of Biobased Products for Listing by USDA

**AGENCY:** U.S. Department of Agriculture.

**ACTION:** Notice and request for comment.

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**SUMMARY:** As required by Executive Order 13101, the U.S. Department of Agriculture (USDA) is proposing guidelines for listing commercially available commercial and industrial biobased products (a commercial or industrial product (other than food or feed) that utilizes biological products or renewable domestic agricultural (plant, animal, and marine) or forestry materials) available for purchase by Federal agencies. This notice includes a generic definition of biobased products, suggested criteria for including biobased items in a list to be put together by USDA, and a description of the process USDA will use in considering items for inclusion on the USDA Biobased Products List. USDA is seeking specific public comment on the criteria and process and other comments as appropriate. USDA will, after development of the first list, also be accepting items for listing on an on-going basis.

**DATES:** Comments should be received on or before September 13, 1999.

**ADDRESSES:** Individuals wishing to comment must send an original and two copies of their written comments to: J. R. Holcombe, Jr.; Office of Procurement and Property Management; U.S. Department of Agriculture; Mail Stop 9303; 1400 Independence Avenue, SW; Washington, DC 20250. Please place the phrase "USDA Biobased Products List" on your envelopes containing comments. The comments themselves also should be identified with the phrase "USDA Biobased Products List".

**FOR FURTHER INFORMATION CONTACT:** J. R. Holcombe, Jr., at the address above or by E-mail at richard.holcombe@USDA.GOV. Persons requiring accommodations, including sign language interpreters, should call J. R. Holcombe, Jr. through Terry Thir at (202)720-2531 or TDD (202)720-8372).



SUPPLEMENTARY INFORMATION:

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- VII. Questions and Answers
- IX. Appendix
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  - 2. Other Resources

## I. Authority

The designation and consideration of biobased products is authorized by Executive Order (EO) 13101, Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition, dated September 14, 1998, as follows:

***Sec. 504. Designation of Biobased Items by the USDA.*** *The USDA Biobased Products Coordination Council shall, in consultation with the FEE (Federal Environmental Executive), issue a Biobased Products List. (a) The Biobased Products List shall be published in the Federal Register by the USDA within 180 days after the date of this order and shall be updated biannually after publication to include additional items; (b) Once the Biobased Products List has been published, agencies are encouraged to modify their affirmative procurement program to give consideration to those products.*

The requirement for Federal agencies to consider biobased products is not only in Executive Order 13101, but also in Office of Management and Budget (OMB)/Office of Federal Procurement Policy (OFPP) Policy Letter 92-4 and applies to all Federal agencies. E.O. 13101 is silent on micro-purchases, thus there is no threshold or other exception which would discourage agencies from purchasing biobased products. Nor is there any exemption for purchases using Federal credit cards. While there is no stated equivalent encouragement for state and local governments to purchase biobased products, generally state and local governments follow the Federal lead in such matters.

## II. Background

Sustained economic growth depends on having a secure raw material source for industrial production. Petroleum, today's prevalent industrial feed stock, is neither sustainable nor environmentally friendly. Biobased products offer alternatives to petroleum and mineral-derived industrial products currently in the marketplace

which may have negative environmental impacts. Biological plant and animal systems and processing streams in the U.S. food, feed and fiber industries are renewable over a short time frame and, in general, at the end of their life cycle are either recycled, or allowed to return in an environmentally friendly manner to the environment. Utilizing biobased materials to produce industrial products will expand the nation's capabilities to take advantage of new and exciting technologies and America's agricultural abundance.

From a procurement perspective, a broader range of biobased industrial products will assist agencies in successfully meeting environmental goals as outlined in E.O. 13101. From the USDA perspective, the issues extend well beyond good stewardship of the nation's resources.

USDA is engaged in research and development activities for biobased industrial products. These activities are conducted in-house, through universities and colleges, through private business, and through USDA's Alternative Agricultural Research and Commercialization Corporation. Partnerships with universities, industry, state and local government and other Federal agencies to create, apply and transfer knowledge and technology, have resulted in a broad range of non-food and non-feed products to meet expanding market needs. Some of these products offer many performance advantages over conventional products such as enhanced quality, durability, flexibility, and strength, and are biodegradable when appropriate.

Buying biobased products ensures that "biobased industrial products will be a major U.S. economic growth area in the next century as fossil-based industrial products, such as synthetic chemicals and liquid fuels, were in the 20th century. Biobased industrial products will improve economic security through use of domestic versus imported resources, optimal use of currently unused or underused land, and geographically widespread production and manufacture across the U.S." (Quote from

Vision for Agricultural Research and Development in the 21st Century, December 14, 1998, prepared by the National Agricultural Biotechnology Council).

The Biobased Products List (BPL) does not qualify as a rule making under the Administrative Procedure Act, 5 U.S.C. 551 et seq. The Biobased Products Coordination Council (BPCC) listing of biobased products is without a binding effect. Agencies are not required to purchase biobased products, and listing does not guarantee any sales of such products. Listing heightens awareness in the Federal acquisition community that such products are available. Listing acknowledges that these products contain certain features that may make the products more desirable for Federal agencies. The BPCC also is not requiring any action be taken by the private sector. The listing is simply information dissemination. Even though not a rule, USDA is eager to obtain public involvement in the formulation of the biobased products list to develop a more utilitarian, comprehensive, and informed list. For those reasons, USDA is soliciting public comment through this notice.

As stated above, the designation of products by USDA and the resulting BPL is part of USDA's efforts to heighten awareness among those in the Federal acquisition community regarding the availability of such products. Simultaneously, as a collateral benefit, USDA believes such listing will promote the use of products made from agricultural materials. The intent of E.O. 13101 is to use the purchasing power of the Federal government to create new markets and stimulate the development of new environmentally preferable products, including biobased products, for the Federal market. As with recycled content products, Federal agency procurement of biobased products will: (1) demonstrate their performance and quality; (2) help to provide markets, thereby encouraging manufacturing; (3) drive the development of product specifications; (4) promote wider availability; (5) provide a model for State and local

governments; and (6) remove barriers to procurement and use of these products.

The Federal market place is already well aware of mature biobased products, such as cotton shirts and dimensional lumber. Because of the anticipated large number of biobased products of which Federal officials are unaware, and to help keep the BPL manageable and useful as an effective and efficient procurement information resource, USDA has decided not to list commonly known mature products. Instead, USDA is publishing the BPL to promote new uses for conventional crops, non-conventional crops, biological products, marine products, or forestry materials. Additionally, by increasing the acquisition of the number and kinds of biobased products available for purchase by Federal procurement officials, competition in contracting will be strengthened. Successful implementation of E.O. 13101 will have significant outcomes for U.S. agriculture and the environment. There will be economic, environmental and societal advantages from the development of industrial feed stocks from agricultural materials.

### III. Definitions

A "biobased product" is defined in E.O. 13101 as a commercial or industrial product (other than food or feed) that utilizes biological products or renewable domestic agricultural (plant, animal, and marine) or forestry materials.

"Mature markets" means a product area that exists with sufficient commercial sales so that, within the judgment of USDA, no marketing support is needed.

"Environmentally preferable products" means products that have a lesser negative impact on human health or the environment when compared with competing products that serve the same purpose. This comparison should use principles recommended in guidance issued by the U.S. Environmental Protection Agency (EPA) (see Federal Acquisition Regulation 23.703).

These are commonly recognized definitions. The public is encouraged to comment on these definitions and suggest others.

#### IV. Model

This notice, and the proposed USDA methodology for designating biobased products, is patterned after the Guidelines for Procurement of Products Containing Recovered Material (Comprehensive Procurement Guidelines—CPG) published by the U.S. Environmental Protection Agency (EPA) which designates items that are or can be made with recovered materials (59 FR 18852, April 20, 1994). In like manner, the USDA BPL will identify commercial or industrial products made from agricultural, forestry and marine materials. The CPG implements section 6002(e) of the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984, section 502 of E.O. 12873, and E.O. 13101. RCRA requires EPA to designate items that can be produced with recovered materials and to recommend practices for the procurement of designated items by procuring agencies. E.O. 12873 and E.O. 13101 set forth procedures for EPA to follow in implementing section 6002(e) of RCRA. Specifically, EPA designates products for agencies to purchase and provides recommendations for purchasing those products containing recovered materials. Similarly, E.O. 13101 directs that USDA identify biobased products and prepare a list of biobased products and “agencies are encouraged to modify their affirmative procurement program to give consideration to those products.” Updated information on CPG can be found at the web site: <http://www.epa.gov/cpg>.

#### V. Methodology

As soon as E.O. 13101 was signed on September 14, 1998, USDA began its efforts to compile a list of biobased products as required by the E.O. A committee was appointed by USDA’s BPC to prepare the appropriate notice for the Federal Register.

The committee is made up of individuals with commercialization, legal, legislative, marketing, procurement, rural development, research, and other technical expertise and who meet to work on the list. Early in the process, draft copies of the proposed listing process were shared with other Federal agencies, environmental organizations, and agri-industry groups, including the major commodity representatives. The Federal Trade Commission was contacted to seek their guidance with respect to labeling products biobased. The committee also utilized existing documents on biobased products referenced in the appendix of this document. Based on public input, research and the expertise of the committee, this notice for comment was prepared.

A number of questions were raised during the committee deliberations. Many of these related to the standard procurement requirements of price, performance, and availability. Some are answered below under the criteria section, while a number of other considerations are conveyed under section VII entitled “Questions and Answers”.

USDA proposes to designate biobased products by establishing and maintaining a list of product categories. For this document we have combined some categories of commercial and industrial products. Other categories are not listed because they do not designate products which are purchased by government procurement officials. This document is presented to the public for comment. USDA is providing an opportunity for interested parties to suggest changes (alterations, additions or deletions) to the designated categories. USDA will consider the timely comments and publish its decision in the Federal Register as a notice. Over time USDA will determine whether the world wide web or a similar electronic communication system may be adequate to allow open public review and comment. If this determination is made, the electronic system will be used to supplement publication in the Federal Register.

USDA also will issue guidance in the Federal



Register on buying biobased products in a Biobased Products Advisory Notice (BPAN). The BPANs will recommend biobased content ranges or other descriptors for biobased products and will be based on current information on commercially available biobased content products. Content levels will be updated as marketplace conditions change. BPANs will be prepared and published in the Federal Register for public comment in the same manner as the BPL.

USDA will list products and sources for these products on a world wide web site to allow buyers to use the designation of products as a “yellow pages” to seek out biobased products for their use. Biobased products which USDA is aware of will be listed on the site. USDA will not guarantee the validity of the advertising claims presented by the vendor to inform USDA of the product. Vendors are advised that their advertising, labeling, and other marketing claims should comply with the U.S. Federal Trade Commission’s Guides for the Use of Environmental Marketing Claims, 16 CFR Part 260. USDA also does not endorse any products on the list. Vendors may submit information to describe their products and its availability at any time after a suitable category is developed.

Products may be listed in more than one category. The extent of information to be offered USDA to support listing a product is determined by the vendor. Should USDA reject a proposed listing, the vendor will be informed of the reasons and allowed to resubmit.

While directed primarily at Federal executive branch agencies, the BPL and BPAN information is helpful to everyone interested in purchasing biobased-content products. It is expected that state and local governments and commercial businesses will find the BPL and supporting information helpful.

As part of the BPL designation process, USDA will make its supporting documentation and background information available. In addition,

product research information will be published in a technical background document that discusses product availability, performance, relevant specifications, government purchasing, and other pertinent issues.

All proposals, designations, and recommendations will be published in the Federal Register with a brief description for each of the designated products listed (BPAN). The public also can view USDA’s recommended biobased content range, or other descriptors and a list identifying manufacturers, vendors, and suppliers for each product at a web site to be created.

USDA’s method for identifying, proposing, and designating BPL products is developed based on the experience of EPA in the designation of recycled-content products and on the direction set up in E.O. 13101, section 504. Prior to issuing or revising the BPL, USDA will consult with Federal acquisition officials, EPA and the Federal Environmental Executive (FEE) required under E.O. 13101, to identify additional criteria to consider when selecting (product areas) products for designation.

However, these product categories are not all inclusive and other categories may be suggested through the comment process. Many of the products under these categories in this first list are those known to USDA or its partners because USDA has performed research, initiated technology transfer, or provided commercialization assistance for these products. USDA realizes there are many biobased industrial products developed by the private sector with little or no Federal assistance. These will also be considered for listing without bias. The biobased industrial products list will be amended periodically to incorporate additional products or categories based on public participation. Following is a summary of USDA’s selection criteria.

## **VI. Criteria for Proposing Biobased Products**

USDA proposes to evaluate five primary concerns, which every product must meet, when

examining products for proposed listing. Products proposed for listing must:

### **(1) Contain Biobased Materials**

Products with a higher percentage of biobased content, are considered better. Products must be manufactured with raw materials that are domestically produced from agricultural production—farming, ranching, forestry, aquaculture—or from materials derived during the processing of these biobased products. Particular attention is paid to those products produced from materials that are a significant component of the waste stream.

### **(2) Readily Available**

The products USDA selects for designation are available from national, regional, or local sources. The relative availability of a product influences the ability of a procuring agency to secure a reasonable price and an adequate level of competition when procuring it. USDA does not intend to designate experimental or developmental products until it can be shown that they meet these evaluation criteria, in particular, commercial availability. Several of the technologies behind the products are new and supported by patents. Some of these products have been developed through Cooperative Research and Development Agreements (CRADAs) while other companies have licensed USDA developed technologies. Given this knowledge, the committee felt it would be in the Government's interest to purchase those products developed with Federal research and commercialization dollars. Sole-source products may be listed. Additionally, although competition is desirable, all applicable patents shall be recognized. However it was also felt that the promotion of these technologies would encourage other companies to commit funds to enter the market thus leading to greater competition.

### **(3) Reasonably Priced**

It also is important for the product to be priced competitively. It is highly desirable that there is

adequate competition among suppliers of the product.

### **(4) Performance**

Products must meet commercial or Federal performance standards and specifications.

If product and service providers make marketing claims regarding the environmental attributes of their product or service, including claims of environmental preferability, the claims should conform to the Federal Trade Commission's (FTC's) Guides for the Use of Environmental Marketing Claims (Green Guides), 16 CFR Part 260. A copy of the Green Guides can be obtained through FTC's website: [www.ftc.gov](http://www.ftc.gov) (select "Consumer Protection", then select "Environment", then select "Guides"). As explained in the FTC Green Guides (16 CFR 260.5), any party making a claim concerning a product's environmental attribute "must, at the time the claim is made, possess and rely upon a reasonable basis substantiating the claim. A reasonable basis consists of competent and reliable evidence. In the context of environmental marketing claims, such substantiation will often require competent and reliable scientific evidence, defined as tests, analyses, research, studies or other evidence based on the expertise of professionals in the relevant area, conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results." The Green Guides (16 CFR 260.5) provide guidance on the use of environmentally preferable claims, as well as other claims such as biodegradable, recycled, recyclable, non-toxic, and ozone friendly.

The Green Guides state that either an unqualified or inadequately qualified claim that a product is environmentally preferable implies to consumers that a product is generally environmentally superior to others. Such an overall superiority claim would be difficult to substantiate. Accordingly, environmentally preferable claims



should be accompanied by language limiting the preferability claim to the particular attributes that can be substantiated. In other words, the claim should explain which specific product features or attributes benefit the environment (for example, the product is non-toxic, contains no VOCs, and comes in a recycled package). In addition, the Green Guides state in 16 CFR 260.6, 260.7 that when environmental seals-of-approval or other certifications are used, they should be accompanied by information explaining the basis for the award.

### **(5) Meets EPA's EPP Guiding Principles**

Products must meet the Environmentally Preferable Products (EPP) Guiding Principles as published by the EPA. (See definitions section III above for the definition of EPP. The EPP Guiding Principles are listed below.)

#### ***Guiding Principle 1:***

***Environment + Price + Performance = EPP***

Environmental considerations should become part of normal purchasing practice, consistent with such traditional factors as product safety, price, performance, and availability.

#### ***Guiding Principle 2: Pollution Prevention***

Consideration of environmental preferability should begin early in the acquisition process and be rooted in the ethic of pollution prevention which strives to eliminate or reduce, up front, potential risks to human health and the environment.

#### ***Guiding Principle 3:***

***Life Cycle Perspective/Multiple Attributes***

A product's or service's environmental preferability is a function of multiple attributes from a life cycle perspective.

#### ***Guiding Principle 4: Magnitude of Impact***

Determining environmental preferability might involve comparing environmental impacts. In comparing environmental impacts, Federal

agencies should consider: the reversibility and geographic scale of the environmental impacts, the degree of difference among competing products or services, and the overriding importance of protecting human health.

#### ***Guiding Principle 5:***

***Environmental Performance Information***

Comprehensive, accurate, and meaningful information about the environmental performance of products or services is necessary in order to determine environmental preferability.

Copies of EPA's final EPP guidance document can be obtained by calling the Pollution Prevention Information Clearinghouse (PPIC) at (202) 260-1023. The text included here is our understanding of the guidance being finalized. We intend to use the final guidance published by EPA in operation of the Biobased Products List. The proposed EPP guidance was published for public comment at 60 FR 50722, September 29, 1995, and is available on the Internet at (<http://www.epa.gov/docs/EPA-TOX/1995/September/Day-29/pr-139.html>). We will rely on manufacturers' advertising claims as a self-certification of these five principles.

### **VII. Proposed Categories of Products for Consideration**

A key component of the BPL program is USDA's list of designated products and the accompanying biobased content recommendations. USDA is proposing to designate products in the categories listed below. USDA also will publish final or proposed biobased content recommendations for each product. At this point, the proposed categories are listed for informational and discussion purposes only. USDA is interested in learning about category areas for potential future designation. There is not a specific list of the information, which USDA requires before considering a product, although the discussion above under "Criteria for Proposing Biobased Products" should provide general guidance for those wishing to submit products for listing.

More details about USDA's information needs and the agency's decision-making process will be provided after public input is received from this notice.

**Category 1: Absorbents/Adsorbents**

Within this category, the environmental preferability of the entire product (e.g., absorbent/adsorbent and the casing or framework holding or enclosing the absorbent/adsorbent) must be addressed by the buyer. Product examples under consideration for listing include:

- Vegetable starch
- Cotton and cotton linters (cotton pads, oil absorbents)
- Wool (low value wool is used to make adsorbent pads)
- Kenaf (oil absorbent)
- Agricultural wastes (such as corn stover, peanut hulls, and other crop residues to absorb liquids and petroleum)

**Category 2: Adhesives/Inks/Coatings**

Within this category a number of adhesives have been developed which utilize plant proteins, plant starches and plant oils. These adhesives generally have low or no emissions (below EPA standards where applicable) of hazardous air pollutants and volatile organic compounds (VOC's). Examples of products using biobased adhesive under consideration for listing include:

- Plywood
- Finger-jointed lumber
- Engineered wood building components (laminated beams, trusses, etc.)
- Decorative composites
- Fiber board panels
- Paper board
- Plant oils are used to make inks. To be con-

sidered a plant-based ink, the ink must contain a minimum of 20 percent by volume of plant oil (Vegetable Ink Printing Act of 1994, Pub.L. 103-348). Examples under consideration for listing include:

- Soy ink

(In regards to this product, in its own agency print shops, the Federal government buys ink. However, it also buys printing. The intent of this designation is to have Federal procurement officials purchase soy inks for in-house use and specify the ink for contracted printing.) Also in the development stage at this time is a broader range of inks such as silkscreen and flexography, toners for copiers and laser printers, inkjet printer inks, textile inks and higher soy content UV cured inks for a variety of purposes. When these products are commercially available, they will be designated if appropriate.

Plant oils are also used in a number of paints and coatings. Examples under consideration include:

- Concrete sealants and waterproofing
- Concrete stains
- Wood sealers and waterproofing
- Architectural coatings
- Metal coatings
- Form release agents
- Corrosion inhibitors and polishes.

**Category 3: Alternative Fuels and Fuel Additives**

Within this category agricultural raw materials, derivatives, or byproducts have been used to develop alternative fuels. Examples under consideration for listing include:

**Motor Fuels**

- Biodiesel (made from plant based oils or animal fats)

- Ethanol (made from corn or other biomass)

#### Energy Fuels

- Fuel pellets (Generally such products contain over 60 percent by weight agricultural, forest, or other woody fiber, produce less than 20 percent ash after complete combustion, and contain less than 15 percent moisture.)

#### **Category 4: Construction materials/Composites**

This category includes wood products and composites from woody and agricultural materials, residues, and wastes. Within this category, products must be derived from agricultural crop, forest materials, or crop residue (includes woody materials). The woody materials can be from activities such as thinning, or fuel reduction in plantation stands, regenerated forest stands, or intensively cultured short rotation woody stands, i.e. less than 10 years, or from wood residue, or recovered wood products. Products produced from recovered agricultural wastes (including waste paper) need not meet the short rotation woody crop requirement during the manufacturing process. Examples under consideration for listing include:

- Wall systems made from compressed wheat straw or other plant fibers
- Fiber board made from wheat or other cereal straw, sugarcane bagasse, or other plant fibers
- Composites made from soybean meal or other plant proteins
- Molded auto parts from vegetable fibers
- Building or office furnishings (desks, tables, cabinets, etc.) made from biobased composites

This category includes wood products and composites from woody and agricultural materials which are bound with biobased resins. Examples under consideration for listing include:

- Plywood

- Finger-jointed lumber
- Engineered wood building components (laminated beams, trusses, etc.)
- Decorative composites

The category may also include thermoset plastics and reinforced plastic parts and plastic foam insulation materials made from vegetable oil or protein-based resins. Examples under consideration include:

- Rigid foam insulation
- Door and window components
- Molded reinforced plastic automotive and equipment parts

#### **Category 5: Lubricants/Functional fluids**

Within this category products include oils and greases. Products are generally made from soybean, canola, rapeseed, corn or other plant materials. Examples under consideration for listing include:

- Vehicle lubricants (crankcase oils, transmission fluids, fifth wheel grease, all purpose total loss lubricants)
- Vehicle fluids (windshield washer fluid from ethanol)
- Air-cooled engine lubricants (crankcase oils, greases)
- Hydraulic fluids
- Gearbox oils
- Metal working fluids and cutting oils
- Total loss lubricants: (including 2-cycle engine oils, rail and flange lubricants, wire rope and cable lubricants, pump drip oils, bar chain oils, lumber skid lubricants, asphalt release agents, concrete form release oils, and penetrating oils).

#### **Category 6: Renewable alternative fiber papers/Packaging**

Within this category, products must have at least 30 percent recovered content fiber (E.O. 13101), in addition to biobased content, and the manufacturing process should use less (or zero) chlorine during bleaching than traditional tree fiber produced papers. Crops must be of short rotation (less than ten years) cropping system required. Examples under consideration include papers which have as their raw materials source:

- Kenaf
- Other short term fibers

Because they are mature markets, rag and linen papers are not suggested for consideration.

#### **Category 7: Solvents/Cleaners/Surfactants**

Within this category examples of products under consideration for listing include:

- Citrus based cleaners
- Soy-based cleaners and degreasers
- Soy-based solvents
- Soy-based paint strippers and graffiti removers
- Soy-based adhesive removers
- Pesticide adjuvants and surfactants
- Dormant oil sprays for disease and insect control
- Other plant oil based solvents and cleaners

#### **Category 8: Plant based plastics /Degradable polymers/films**

Within this category examples under consideration for listing include:

- Plant starch compostable cutlery
- Polylactic acid (PLA) compostable cutlery
- Paper plates coated with starch
- Protein derivatives or PLA (compostable)

- Plant protein used to make films and biodegradable bags
- Loose fill packing peanuts from starch or other natural plant materials
- Flexible polyurethane foams made with soybean oil based polyols (molded cushions and pads for furniture, automotive seats, dashboards, etc.)
- Resilient polyurethane components made with soybean oil based polyols (molded cases and covers for appliances, telephones, computers, etc.)
- Rigid insulating foams made from soy proteins (insulation for refrigerators, freezers, coolers, appliances)

#### **Category 9: Landscaping products**

Within this category a number of landscape materials are produced by composting green wastes. Some biobased materials, when used as absorbents, can also bioremediate hydrocarbons. Examples under consideration for listing include:

- Potting soil
- Soil amendments
- Protein-based mulching films

#### **Category 10: Biocontrol/Bioremediation Media**

Within this category are products which contain microbes which prevent plant diseases thus reducing or eliminating the need for chemical pesticides. Bioremediation products may also be used to simultaneously remove or separate toxic or hazardous substances from soil or surface water while promoting the development of native microbe populations to hasten biodegradation of residual amounts of hazardous substances. Examples under consideration for listing include:

- Biocontrol potting mix

- Cotton linters
- Oil spill clean-up materials

**Category 11: *New fibers/Filler/Yarn/Insulation***

Within this category several new fibers, or fibers which were once common in the U.S., are under development or redevelopment. Examples under consideration for listing include:

- Kenaf (used as absorbent, paper, and clothes)
- Flax (clothes)
- Ramie (clothes)
- Low grade wool
- Low grade cotton
- Milkweed (yarn, pillow filler, oil)
- Plant lignin as adhesives

**Category 12: *Enzymes/Intermediate Chemicals***

Enzymes are sometimes referred to as biocatalysts. They can be used to accelerate a broad range of chemical reactions, which occur in everyday life and are used in production of a variety of materials. Agriculturally-based enzymes and chemicals are found in such products as pharmaceuticals, detergents, cleaning agents, cotton textile surface treatments, personal care products, and microbial agents. The committee had difficulty with this category. While we realize these are important manufacturing processes and utilize agricultural raw materials, we felt there was a need to directly link the use of an agricultural enzyme/chemical to a commercial product which would be available for purchase by Federal procurement officials, because that is the primary focus of this notice. Thus, we have only mentioned broad product categories. We seek public comment to decide what individual products should be listed under this category. We also seek public comments as to whether or not this should even be a category at all.

**Category 13: *Other***

***Cosmetics:*** Vegetable oils and small molecule plant starches are one of the raw ingredients in a number of cosmetic applications.

***Pharmaceuticals/nutraceuticals:*** Bioactive compounds and complexes are being extracted from plant materials for prevention and treatment of diseases.

***Products No Longer Under Consideration:*** No entries at this time.

***Products That USDA Has Decided Not To Designate:*** The committee has made the determination to focus on commercial and industrial products and to avoid mature products, be they product areas or products themselves. The committee does not foresee a need to designate products such as cotton fabrics or dimensional lumber presently in the commercial marketplace. Composite lumber, which utilizes low value woods or other fiber waste and is made using environmentally friendly glues and processes, would be considered however. Products must be produced from renewable and sustainable resources. Our emphasis is on biobased organic products, not natural or organic. Thus, mined products are generally not under consideration. Petroleum-based products are generally not under consideration unless the end product is distinguished by the incorporation of renewable biobased materials.

## VIII. Questions and Answers

### ***What is the Biobased Products Coordination Council (BPCC)?***

The BPCC was established by virtue of a Decision Memorandum signed by the Secretary of Agriculture on September 13, 1995. The Council is chaired by the USDA Under Secretary for Research, Education, and Economics. The Council promotes commercial and industrial biobased product research, development, and commercialization through information sharing, implementation of strategic planning, and provision of policy advice to the Secretary. Ten USDA agencies are members of



the Council and include: Forest Service, Agricultural Research Service, Cooperative State Research, Education, and Extension Service, Office of Energy Policy and New Uses, Alternative Agricultural Research and Commercialization Corporation, Foreign Agricultural Service, Natural Resources Conservation Service, Agricultural Marketing Service, Rural Business-Cooperative Service, and the Office of the Assistant Secretary for Administration.

### ***Why Are Biobased Products Environmentally Preferable?***

Because of their carbohydrate chemistry, biobased products are believed, within USDA, to be generally preferable to those made from hydrocarbons. However, not all biobased products are environmentally preferable. For the purposes of E.O. 13101, USDA is listing only those products which are considered by USDA to be within the U.S. Environmental Protection Agency (EPA) Environmentally Preferable Products Guidelines.

### ***Should the Biobased Product List Contain Only Products That Are Commercially Available, or Should Products Now in the Research Stage Also Be Included? Is the Product Available Only in a Limited Geographic Area?***

The committee unanimously agreed that generally only those products in commercial production and generally available nationally should be included. However, geographic exceptions can be considered. For instance, landscaping materials are usually produced and consumed regionally since it is not economical to transport such materials over long distances. Starch-based packing peanuts are another example. Both these products should be used near the point of production. In some instances, a company may be national in scope but have regional operations to address transportation and other economic issues.

### ***Should There Be a Minimum Percentage of Biobased Materials in the Products Suggested***

### ***for Listing?***

Since the biobased products cover a wide range of industries, it was felt no one percentage could be fairly applied across the board. Instead, the committee agreed that each category of products could have their own percentage requirements by weight or volume based on what the committee could learn about that category. The committee does believe that the products should contain the largest percentage of biobased raw materials possible. Persons commenting on this notice are encouraged to address the percentage issue.

### ***What About One Biobased Product Replacing Another?***

In its deliberations, the committee considered the possibility of one biobased material displacing another biobased material as feedstock, thereby resulting in no net reduction in materials available. We also discussed whether the diversion of biobased materials from one product to another could possibly create shortages in feedstocks for one or both products; and the ability of manufacturers to obtain biobased materials in sufficient quantity to produce the product under consideration. The committee believes the likelihood of these displacements happening is not great, and that it is more important, at this juncture, to stimulate the production of biobased products. If substitution occurs at some future date, USDA will consider developing guidelines to deal with the situation.

### ***Will Products Be Listed by Company Name?***

One of the issues considered was whether or not to list products by manufacturer name and address in the initial notice. The committee believes it was prudent to first get full public comment on the guidelines, categories, criteria and methodology (process) before proceeding to list products by manufacturers. It is the intent of the USDA to incorporate these public comments into a notice 60 days after the publication of this request for comment. That notice will call for the submission of information from companies



which have products they believe will fit the defined criteria. A document (BPAN) listing products by company name, address, phone numbers, and sales contact information will be produced in the future after all interested parties have had a reasonable opportunity to submit their information for listing. Those submissions will be evaluated by a team of technical experts and published in a separate document and will also be available on a web site to be created at a later date.

## IX. Appendix

### 1. *Biobased Products Coordination Council*

Biobased products from agricultural and forestry resources provide renewable raw materials for the processing and manufacturing of a broad range of nonfood and nonfeed products, such as chemicals, fibers, construction materials, and energy sources. Development and commercialization of such products provide new and expanded markets, accelerate successful market penetration, and diversify agriculture while fostering rural and sustainable development.

The Biobased Products Coordination Council, established by the Secretary of Agriculture, is chaired by the USDA Under Secretary for Research, Education, and Economics. The Council promotes biobased industrial product research, development, and commercialization through information sharing, implementation of strategic planning, and provision of policy advice to the Secretary. Currently ten USDA agencies are members of the Council.

The activities of these agencies in the area of biobased industrial products are described as follows:

#### *Forest Service*

The Forest Service (FS) has Federal responsibility for national leadership in forestry and forestry-related issues. Through its research arm, the FS develops and communicates scientific and technological information to protect,

manage, and use the Nation's 1.6 billion acres of forest and related rangeland.

The FS Resource Valuation and Use Research program and Cooperative Forestry program develop and provide scientific and technological information to support the harvesting, production, and use of wood products in ways that are efficient, safe, and environmentally beneficial. Specific areas of development include improved wooden transportation systems; fiber-reinforced cement products; uses for waste wood and plastics (ranging from very inexpensive, low-performance composites to expensive, high-performance building materials); housing components and systems made from recycled wood waste and wastepaper; and novel enzymes used to treat virgin and recycled wood fibers in the production of a variety of chemicals.

#### *Agricultural Research Service*

As the in-house research arm of USDA, the Agricultural Research Service (ARS) develops new knowledge and technology needed to solve a broad range of technical and agricultural problems of high national priority. ARS aims to ensure adequate production of high-quality food and agricultural products to meet the nutritional needs of the American consumer, to sustain a viable food and agricultural economy, and to maintain a quality environment and natural resource base.

Biobased industrial product research and development focuses on areas such as chemicals and industrial products from crops, cattle, and animal fats; starch-based biodegradable plastics; polysaccharide encapsulating agents; and new products from soybean oil, which are useful as additives to lubricants, fuels, and plastics, as surface coatings; and as inks for the printing industry. Additional areas include development of ion exchange resins based on agricultural residues, cotton-based fabrics with versatile new and improved properties, and fiber crops for specialized uses.

#### *Cooperative State Research, Education, and*

### *Extension Service*

The Cooperative State Research, Education, and Extension Service (CSREES), USDA's principal link to academia, participates in a nationwide agricultural research planning and coordination system that includes State land-grant universities and the agricultural industry. CSREES advances research and development in new uses for industrial crops and products through its Agricultural Materials program, National Research Initiative, Small Business Innovation Research program, and other activities.

Areas of interest include paints and coatings from new crops such as vernonia, euphorbia, and lesquerella; fuels and lubricants from soybeans, crambe, rapeseed, and canola; fiber products from kenaf and hesperaloe; natural rubber from guayule; and biobased polymers from vegetable oils and starches.

### *Office of Energy Policy and New Uses*

The Office of Energy Policy and New Uses provides leadership, oversight, coordination, and evaluation for all USDA energy and energy-related activities with the exception of those delegated to the USDA Assistant Secretary for Administration. The Office analyzes existing and proposed energy policies, strategies, and regulation concerning or potentially affecting agriculture or rural America. It also evaluates the feasibility of new uses for agricultural products.

In collaboration with the U.S. Department of Energy and the U.S. Environmental Protection Agency, projects have focused on technologies that convert plant cellulose and hemicellulose into ethanol and electricity production using direct combustion or gasification technologies.

### *Alternative Agricultural Research and Commercialization Corporation*

Created by Congress as part of the Farm Bill in 1990, the Alternative Agricultural Research and Commercialization Corporation (AARC) is a USDA agency that makes equity investments to

commercialize industrial products from agricultural and forestry materials and animal byproducts. This activity complements the work of USDA's research agencies. AARC policy and program direction is provided by a nine-person Board of Directors—eight of whom are non-Federal—representing processing, financial, producer, and scientific interests.

Development and commercialization projects include vegetable oil lubricants for engines and transmissions; building materials made from wheat straw; cleaners and biodiesel fuel made from vegetable oil; a lightweight, high-strength molded fiber panel made from waste wood and kenaf; windshield washer solvent using ethanol made from corn; oil spill absorbents made from natural fibers; and a nontoxic biodegradable concrete release agent.

### *Foreign Agricultural Service*

The Foreign Agricultural Service (FAS) maintains 75 overseas posts with the overall goal of supporting U.S. exports of agricultural, forest, and fish products. This is accomplished by reducing trade barriers, collecting and disseminating global trade and market information; and developing markets through the use of promotion, loan guarantees, food aid, and economic development activities.

FAS works through private industry to identify overseas markets for new products, promote exports of such products, and research and develop new products. FAS supports these activities through the Market Access Program, the Foreign Market Development Program, and scientific exchanges sponsored by the International Cooperation and Development program.

### *Natural Resources Conservation Service*

The Natural Resources Conservation Service (NRCS) has national responsibility for helping farmers, ranchers, and other private landowners develop and implement voluntary efforts to conserve and protect our Nation's natural

resources. Key NRCS programs provide technical assistance to land users and local government to sustain agricultural productivity while protecting and enhancing the natural resource base.

Activities emphasize reduction of soil erosion; improvements in soil and water quantity and quality; wetland conservation and improvement; enhancement of fish and wildlife habitat; improvements in air quality; improvements in the conditions of pastures and rangelands; reduction in upstream flooding; and improved woodlands.

### *Agricultural Marketing Service*

The mission of the Agricultural Marketing Service (AMS) is to facilitate the strategic marketing of agricultural products in domestic and international markets while ensuring fair trading practices and promoting a competitive, efficient marketing system. Working with other government agencies, and the public, AMS establishes grades and standards for a wide array of agricultural commodities and products and provides grading and classing services to certify the quality or condition of products in marketing channels.

AMS provides oversight of federally sanctioned marketing orders and agreements and industry wide market research and promotion programs. In addition, the agency administers certain pesticide reporting requirements, compiles data concerning pesticide residues on certain products, and conducts or administers research and technical assistance programs to improve the efficiency of the marketing and transportation system and to identify new or expanding market opportunities for U.S. farmers and agribusiness.

### *Rural Business-Cooperative Service*

The Rural Business-Cooperative Service promotes economic development in rural communities by financing needed facilities, assisting business development and rural cooperatives,

and planning national strategies for rural economic development.

### *Office of the Assistant Secretary for Administration*

The USDA Assistant Secretary for Administration provides leadership and oversight in acquisition, asset management, civil rights, internal energy conservation, and recycling. As the USDA Energy Management Executive and the Environmental Executive (dual assignment with the Under Secretary for Research, Education and Economics), the Deputy Assistant Secretary has responsibility for coordinating environmentally preferable and energy-efficient initiatives and serves as an advocate for coordination of these initiatives in USDA facilities and programs across the country.

## 2. *Other Resources*

*Agricultural Research, Extension, and Education Reform Act of 1998*, Sec. 404 (7 U.S.C. 7624), provides authority to increase and coordinate biobased product activities in USDA.

*Sustainable America, A New Consensus for Prosperity, Opportunity, and a Healthy Environment for the Future, President's Council on Sustainable Development*, Washington, D.C., 186 pp., 1996. Contains a national action strategy for sustainable development which includes actions to: (1) Diversify the mix of agricultural goods produced to enhance profitability and environmental quality; and (2) promote ongoing efforts to achieve sustainable forest management.

*Strategic Direction for Biobased Products Work in USDA Through the Biobased Products Coordination Council (BPCC)*, BPCC, Washington, DC, 16 pp, 1999. A plan to carry out programs to increase the domestic research, development and commercialization of biobased industrial and commercial products.

*Executive Order 13101, Greening the Government Through Waste Prevention*,

*Recycling, and Federal Acquisition*, 63 FR 49643, Washington, D.C., September 16, 1998. Establishes guidelines and policy for each executive agency to increase and expand markets for recovered materials to create Federal Government preference and demands for such products.

*The National Research Council, Biobased Industrial Products*, National Academy Press, Washington D.C. (In Press). Provides an analysis of the potential benefits of encouraging a transition to more biobased industrial products through future public policies. Biological sciences are likely to make the same impact on the formation of new industries in the next century as the physical and chemical sciences have had on industrial development throughout the century now coming to a close. The biological sciences, when combined with recent and future advances in process engineering, can become the foundation for producing a wide variety of industrial products from renewable plant resources. These "biobased industrial products" will include fuels, chemicals, lubricants, plastics, and building materials. \* \* \* The long-term growth of biobased industrial products will depend on development of cost-competitive technologies and access to diverse markets.

*1995 Federal Research and Development Program in Materials Science and Technology*, The Materials Technology Subcommittee of the National Science and Technology Council, Gaithersburg, MD, 1995. This report describes the materials R&D programs of nine Federal departments and agencies to facilitate collaboration among the public and private sector members of the broad materials R&D community.

*Plant/Crop-Based Renewable Resources 2020 Program—A Vision to Enhance U.S. Economic Security Through Renewable Plant/Crop-Based Resource Use*, Department of Energy, Washington, D.C., 1998. Develops a program to provide continued economic growth, healthy standards of living, and strong national security through the development of plant/crop-based renewable resources as a viable alternative to diminishing fossil feedstocks for biobased products.

*Agenda 2020-A Technology Vision and Research Agenda for America's Forest, Wood and Paper Industry*, American Forest and Paper Association, Washington, D.C., 1994. Develops a long-term strategy for sustainability of forest products by increasingly leveraging the virgin raw material with material recovery and recycling.

*Vision for Agricultural Research and Development in the 21st Century*, National Agriculture Biotechnology Council, Ithaca, NY 1998. Supports agricultural research and development to take the lead in providing technology for a biobased economy in the 21st century.

Done at Washington, D.C., on this 10th day of August, 1999.

I. Miley Gonzalez,  
Under Secretary, Research, Education and Extension.

[FR Doc. 99-21103 Filed 8-12-99; 8:45 am]

BILLING CODE 3410-01-P



# Appendix M

## Final Guidance on Environmentally Preferable Purchasing

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## Guidance on Environmentally Preferable Purchasing

### I. Introduction

On September 14, 1998, President Clinton signed Executive Order (EO) 13101, entitled “Greening the Government through Waste Prevention, Recycling and Federal Acquisition.” Executive Order 13101 (EO 13101) supersedes EO 12873, Federal Acquisition, Recycling and Waste Prevention, issued on October 20, 1993, but retains a similar requirement for the U.S. Environmental Protection Agency (EPA) to develop guidance to “address environmentally preferable purchasing.” (Section 503, EO 13101) The Final Guidance that follows is based on EPA’s September 1995 Proposed Guidance on the Acquisition of Environmentally Preferable Products and Services (60 FR 50721, September 29, 1995) and comments received on that Proposed Guidance as well as lessons learned from pilot projects conducted to date.

The Final Guidance below is designed to help Executive agencies meet their obligations under EO 13101 to identify and purchase environmentally preferable products and services. Section 503 (c) of EO 13101 directs Executive agencies to “use the principles and concepts in the EPA Guidance on Acquisition of Environmentally Preferable Products and Services, in addition to the lessons from the pilot and demonstration projects to the maximum extent practicable, in identifying and purchasing environmentally preferable products and services” and “modify their procurement programs as appropriate.” Furthermore, Section 23.704 of the Federal Acquisition Regulation requires agencies to “affirmatively implement” the objective of “obtaining products and services considered to be environmentally preferable (based on EPA-issued guidance).”

“Environmentally preferable” is defined in Section 201 of EO 13101 to mean products or services that “have a lesser or reduced effect on human health and the environment when com-

pared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance or disposal of the product or service.”

Implementation of the Final Guidance will draw on the procurement experience of the Executive agencies and on the environmental expertise of EPA and other organizations both within and outside of the Federal government. This guidance provides a broad framework of issues to consider in environmentally preferable purchasing and will help Executive agencies systematically integrate environmental preferability principles into their buying decisions.

The guidance is not, however, a step-by-step, “how to” guide and it is not intended to answer many of the specific questions that might arise in the acquisition of a particular product category or service. The list of resources in Section VI provides more specific guidance and information about various product and service categories, environmental attributes that have been identified for them, and the approaches used to consider those attributes in acquisition decisions. For the latest information on other resources and tools under development, Executive agency personnel and others are directed to EPA’s Environmentally Preferable Purchasing Program Web site at: [www.epa.gov/opptintr/epp](http://www.epa.gov/opptintr/epp).

The Final Guidance strives to meet the National Performance Review and procurement reform goals of simplifying and streamlining Federal purchasing while recognizing that the definition of “environmentally preferable” will likely require the consideration of different environmental factors as appropriate for different situations. In sum, the guidance:

- Applies to all acquisition types, from supplies and services to buildings and systems.

- Provides a set of guiding principles.
- Requests Executive agencies to select and implement pilot acquisitions or demonstration projects.
- Provides a framework for Executive agencies to implement the environmentally preferable purchasing provisions of EO13101.

## II. Intended Audience for the Guidance

The target audience of this guidance includes all Executive agency employees involved in the acquisition of supplies, services, systems, and/or facilities. The general guidance and the information generated by the pilot projects also will be useful to Executive agency employees who request, maintain, or use the supplies, services, systems and facilities. In addition, both the general guidance and the pilot project information should provide pragmatic direction for private sector businesses who wish to manufacture, market, or provide environmentally preferable products and services for use by the Federal government.

## III. Overall Approach for Implementing Executive Order 13101

Section 503 of EO 13101 has two key components: (1) development of this guidance; and (2) implementation of the guidance through pilot and demonstration projects. This guidance sets a broad policy framework for implementing environmentally preferable purchasing within the context of Federal government. For the second component, Section 503 (b) of the EO states “[A]gencies are encouraged to immediately test and evaluate the principles and concepts contained in the EPA’s Guidance...through pilot projects...”. These pilots may be undertaken using the in-house expertise of EPA and other Executive agencies, as well as the technical expertise of nongovernmental entities, including, but not limited to, voluntary consensus standards bodies (see §12(d) of the National Technology Transfer and Advancement Act (Pub. L. 104-113, §12(d), 15 U.S.C. 272 note),

environmental standard setting organizations, third party certification programs, environmental labeling or environmental “report card” programs, and other environmental consulting organizations. Section V of this Final Guidance provides more detail about how these pilot projects might work. These pilots are expected to yield more specific and practical information about applying this Final Guidance to purchases of particular products and services.

In addition to promoting environmentally preferable purchasing, EO 13101 encourages Executive agencies to purchase biobased products. (Section 504 (b)). Under the EO, “biobased product” means “a commercial or industrial product (other than food or feed) that utilizes biological products or renewable domestic agricultural (plant, animal and marine) or forestry materials.”

Biobased products may also be environmentally preferable. Made from renewable resources by definition, these products have many positive environmental aspects and should be considered by agencies looking to make environmentally preferable purchases. However, Federal purchasers should not assume all biobased products are automatically environmentally preferable. As with other products, Executive agencies should consider a range of environmental impacts associated with biobased products when making purchasing decisions. In some cases, factors such as pesticide use or high water consumption might make a biobased product less environmentally preferable. The list of biobased products which the U.S. Department of Agriculture will issue under Section 504 of EO 13101 will be a good starting point for Executive agencies looking to identify environmentally preferable purchasing. During the development of pilots under Section 503 (b) of the EO, EPA will look for opportunities involving biobased products.

## IV. Guiding Principles

EPA has developed five guiding principles to

provide broad guidance for applying environmentally preferable purchasing in the Federal government setting. Applicability of these principles in specific acquisitions will vary depending on a variety of factors, such as: the type and complexity of the product or service being purchased; whether or not the product or service is commercially-available; the type of procurement method used (e.g., negotiated contract, sealed bid, etc.); the time frame for the requirement; and the dollar amount of the requirement.

In all acquisitions, Executive agency personnel use their professional judgement and common sense, whether assessing a product or service's performance, cost, or availability. Similarly, in applying these environmentally preferable principles Executive agency personnel should use reasonable discretion about the level of analysis needed to determine environmental preferability. For example, an extensive life cycle assessment might not be conducted to purchase rubber bands. On the other hand, for large-volume or systems acquisitions, or for complex products, such assessments may be appropriate, and might already be required. Or, in some cases, much of the information upon which to build such an analysis might have already been collected.

**Guiding Principle 1:**  
***Environment + Price + Performance =***  
***Environmentally Preferable Purchasing***

*Environmental considerations should become part of normal purchasing practice, consistent with such traditional factors as product safety, price, performance, and availability.*

The manufacture, use, and disposal of certain products might have adverse impacts on human health and the environment. These impacts impose costs that the purchasing entity, and ultimately, society as a whole, end up paying for in one way or another. For the Federal government, the hazardous or toxic nature of a product or service can result in significant cleanup or liability costs, as well as in less directly quantifi-

able, but cumulative and persistent environmental damage. Even non-hazardous waste is associated with ever-increasing disposal costs that can be avoided or reduced. Responsible management, beginning with the initial purchase of products and services that minimize environmental burdens, can diminish the Federal government's raw material, operating, maintenance, and disposal costs. In addition, a product or service's environmental preferability can often have positive impacts on its overall performance.

For these reasons, the Federal government's purchasing decisions are no longer confined to considerations of price and functional performance but should include considerations of environmental performance as well. Today agencies can obtain improved environmental attributes not at the expense of, but instead may operate in concert with, other traditional factors like price and functional performance. Those product or service providers who can optimize all these factors will capture and maintain the largest market-share of government customers.

Just like price, performance, and health and safety, environmental factors should be a subject of competition among vendors seeking government contracts. In turn, this increased competition among vendors should stimulate continuous environmental improvement and increase the availability of environmentally preferable products and services. The purpose of this guidance is to encourage Executive agencies to award contracts to companies that take environmental concerns into account. This process, consequently, will lead to the development of environmentally preferable products and services that perform better and cost less because they reduce waste and negative environmental impacts. As stated, this principle reflects the spirit of a number of reinvention initiatives at EPA and across the Federal government aimed at testing cleaner, cheaper, and smarter approaches to environmental protection.

Agencies have considerable discretion in incor-

porating environmental preferability into procurement decisions, especially within the context of “best value” contracting. For example, environmental considerations that result in payment of a price premium for goods or services may be reasonably related to an agency’s definition of its “minimum needs” and, therefore, may be permissible. This is not much different than paying a higher price for better performance or quality. Federal personnel may consider paying a reasonable premium for environmentally preferable products on a number of grounds. For example, a reasonable price premium may be justified because the environmental attributes of a product or service provide offsetting reductions in operating and disposal costs.

### **Guiding Principle 2: Pollution Prevention**

*Consideration of environmental preferability should begin early in the acquisition process and be rooted in the ethic of pollution prevention, which strives to eliminate or reduce, up-front, potential risks to human health and the environment.*

It is never too early in the acquisition process to begin considering environmental preferability. Pollution prevention, the reduction or elimination of waste at the source, can not only reduce pollution, but it can save money for agencies as well. Defense and civilian Federal agencies have ongoing programs for pollution prevention under EO 12856 and other authorities that can result in cost savings throughout the product or service life cycle. Furthermore, pollution prevention measures can lead to a higher degree of environmental protection by reducing subsequent costs for disposal or cleanup of hazardous wastes and materials. A key reason for environmentally preferable purchasing is to protect the environment by reducing waste and pollution at the source with the resulting benefit of reduced overall cost to the government and the public (taxpayers and society as a whole).

Under this guiding principle, pollution prevention should be the primary motivation and strategy for the Federal government’s implementation of environmentally preferable purchasing. There are many ways to apply pollution prevention to the acquisition process:

- a) Customized purchases or projects in which program managers, architects, engineers, systems designers, or others have input into the design phase afford agencies an early opportunity to apply environmentally preferable concepts. In addition, early involvement offers agencies a unique point of leverage from which to address environmental impacts. Although these types of purchases are not the bulk of Federal acquisition requirements, the early stage of customized product or project design is the time when decisions about different approaches, materials, and manufacturing processes are made. Estimates show that 70 percent or more of the costs associated with product development, manufacture, and use are determined during the initial design stages.<sup>1</sup> By incorporating environmental factors during product or service design, Federal agencies can minimize environmental problems and their associated costs. For example, early environmental consideration helps agencies avoid potential liabilities due to fines as well as the costs of record keeping and reporting.
- b) During the early stages of acquisition, Executive agency personnel can also apply a systems analysis approach for certain products or services (such as computers, buildings, and transportation systems) in which a number of components have interdependent functions. A systems analysis approach takes into consideration the full set of product elements, focusing on how they interact from a life cycle perspective and helping to identify the most efficient options for meeting the government’s needs.
- c) Executive agency personnel might also

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<sup>1</sup>: U.S. Congress, Office of Technology Assessment, *Green products by Design: Choices for a Cleaner Environment*, OTA-E-541 (Washington, D.C.:U.S. Government Printing Office, October, 1992)



appropriately ask whether a product or a service is even necessary or can be replaced by a less damaging process. For instance, in degreasing operations, questions arise as to whether an efficient cleaner using halogenated solvents is better or worse for the environment than an aqueous-based cleaner. A more appropriate question may be whether the cleaning/degreasing step can be eliminated without affecting the overall performance of the product or system. This might be accomplished, for example, by consolidating cleaning and degreasing in a later stage of the manufacturing process or changing the process itself. As this example illustrates, environmental preferability does not just involve substituting a “green” product for another. It also involves questioning whether a function needs to be performed and how it can best be performed to minimize negative environmental impacts.

The Department of Defense integrates pollution prevention into all of its major weapons system acquisition programs. For example, the New Attack Submarine (NSSN) Program has worked to include environmental considerations in all phases of the submarine’s life cycle, from initial design to eventual disposal some 30 or more years later.

By considering all viable environmental alternatives during the design phase, the NSSN Program identified a number of options that will result in benefits. Just a few examples are listed below:

- A redesigned nuclear reactor core will eliminate the need for refueling and disposal of spent nuclear fuel, while achieving a multi-million dollar cost avoidance.
- 1 percent reduction in the number of paints and coatings used in manufacturing the NSSN while ensuring that all of the selected paints satisfy applicable performance and environmental requirements.
- 61 percent reduction in the number of adhesive products to be used on the NSSN com-

pared to the number required for previous submarine classes.

- 80 percent reduction in the number of solvents and cleaners.
- Research and development effort to identify and test a biodegradable hydraulic fluid for submarines to replace the current toxic mineral oil-based fluid.

By recognizing early on that the key to reducing environmental impact throughout the ship’s life cycle is pollution prevention and hazardous material control and management, the NSSN Program was able to design a submarine that meets strict safety and performance requirements, achieves significant cost savings, and minimizes risk to the environment.

***Guiding Principle 3:  
Life Cycle Perspective/Multiple Attributes***

*A product or service’s environmental preferability is a function of multiple attributes from a life cycle perspective.*

Federal agencies should consider the following concepts in applying this principle :

*a) Life cycle perspective*—A product or service has environmental impacts long before and after the Federal government purchases and uses it. The manufacture, use, distribution, and disposal of products create a variety of burdens on the environment. Federal agencies should strive to purchase products or services with as few negative environmental impacts in as many life cycle stages as possible. In other words, Federal agencies should determine the “environmental preferability” of a product or service by comparing the severity of environmental damage it causes throughout its life cycle with that caused by competing products—from the point of raw materials acquisition, product manufacturing, packaging, and transportation to its use and ultimate disposal. By doing so, the Federal government can minimize the overall environmental impacts of products and services. In addition, by actively seeking and con-



sidering life cycle information to inform buying decisions, Executive agency personnel can send a clear signal that government business will go to those who consider the effect of their product's life cycle on the environment.

### *Life Cycle Stages of a Typical Product*

Although most people would agree that considering life cycle impacts in purchasing decisions is desirable, there are disagreements on how to make purchasing decisions that best reflect a life cycle perspective. Even the term "life cycle" is interpreted differently by different people. To some, it connotes an exhaustive, extremely time-consuming, and very expensive analysis. To others, a life cycle perspective is possible in an abbreviated process, in which a long list of potential environmental attributes and/or impacts is narrowed to a few, allowing for comparison across a particular product category. In addition, the ability of Federal purchasers to make buying decisions from a life cycle perspective depends on a variety of factors including: the type of product or service being purchased; the availability of life cycle information and/or willingness by the provider to give the information; and the availability of easy-to-use tools that can translate this information to support purchasing decisions by the Federal government. EPA recognizes that agencies may find it easier to apply a life cycle perspective when the result will be internal agency environmental benefits and/or cost savings rather than external benefits. Nevertheless, EPA encourages agencies to consider reducing impacts along all stages of the product or service life cycle.

This guidance promotes the use of a range of practices, from life cycle considerations to a more rigorous, scientifically defensible life cycle assessment methodology. EPA encourages Executive agencies to use currently available tools as well as help refine and address the needs of Federal purchasers. Examples of available tools and references are listed in Section VI. For the most current list of available tools, Executive agency personnel are referred

to EPA's EPP Program Web site:

<[www.epa.gov/opptintr/epp](http://www.epa.gov/opptintr/epp)>. EPA also encourages experts both within and outside of the Federal community to develop additional life cycle tools to support environmental preferability decisions.

**b) Multiple environmental attributes** — Environmental preferability should reflect the consideration of multiple environmental attributes such as increased energy efficiency, reduced toxicity, or reduced impacts on fragile ecosystems. In addition, these attributes should be considered from a life cycle perspective. Focusing on one environmental attribute of a product or a service, without considering others, might inadvertently exclude important impacts on the determination of environmental preferability. For example, improving one attribute (e.g., increased energy efficiency or reduced toxicity) may result in other unintended environmental life cycle impacts. It is also possible that focusing on a single aspect of the product or service will cause Executive agency personnel to overlook improvements that the vendor has or can make in other aspects of the product or service. In short, it is difficult to be confident that an alternative product is environmentally preferable without some consideration of multiple attributes from a life cycle perspective. Analytical tools such as life cycle assessment can help Federal agencies ensure the product or service they purchase does not create new problems for some other aspect of the environment by identifying other potential negative impacts that should be alleviated.

Although the determination of environmental preferability should be based on multiple environmental attributes, Federal agencies may at times make purchasing decisions based on a single attribute when that attribute distinguishes the product or service in a category. In its environmentally preferable purchasing effort, EPA aims to build upon those attributes that are well-defined, measurable and familiar to Federal purchasers (e.g., recycled content and

energy efficiency). EPA also seeks to support the development of similar definitions and measures for other attributes that are less understood and to advance consideration of multiple environmental attributes in purchasing decisions.

The menu of environmental attributes described in Appendix B offers a preliminary look at what should be considered in environmentally preferable purchasing decisions. Many of the attributes are relevant to a number of different product life cycle stages, while others are more pertinent to one particular stage. The menu should serve as a means to inform Executive agency personnel about the different types of attributes that can make a product or service environmentally preferable. Each and every element in the menu is not meant to be applicable to all products and services nor is the menu all-inclusive.

**Guiding Principle 4:  
Comparison of Environmental Impacts**

*Determining environmental preferability might involve comparing environmental impacts. In comparing environmental impacts, Federal agencies should consider: the reversibility and geographic scale of the environmental impacts, the degree of difference among competing products or services, and the overriding importance of protecting human health.*

In determining environmental preferability, Executive agency personnel might need to compare the various environmental impacts among competing products or services. For example, would the reduced energy requirements of one product be more important than the water pol-

lution reductions associated with the use of a competing product? The ideal option would be a product that optimized energy efficiency and minimized water pollution. When this is not possible, however, Executive agency personnel will have to choose between the two attributes. It is important to consider both the nature of the environmental impact and the degree of difference among competing products.

There is no widely accepted hierarchy that ranks the attributes or environmental impacts that are most important. The following three factors are intended to help Executive agency personnel analyze the environmental impacts of competing products and services and make decisions about environmental preferability when faced with trade-offs among environmental attributes. These factors are not listed in order of importance.

*a) Recovery time and geographic scale—* Federal agencies should consider recovery time and geographic scale in comparing environmental impacts. To what extent is an environmental impact reversible? An impact is less acceptable if the recovery time is longer.<sup>2</sup> The geographic scale of the problem and the importance of the affected ecosystems are also significant. Global environmental impacts are more significant, therefore, than ecological stressors that have a local or regional ecosystem impact.<sup>3</sup>

The table shown below provides a basic framework for considering the reversibility and geographical scale of environmental impacts and includes some examples of how certain impacts might fit into the matrix.

<sup>2</sup> This is based on the findings of the Science Advisory Board, published in its 1990 report entitled "Reducing Risk: Setting Priorities and Strategies for Environmental Protection," a statement of policy on priority pollutants affecting environmental and public health. In this report, environmental stressors were judged to be significant based on two primary criteria—the geographic scale and degree of reversibility of the impact.

The Science Advisory Board is a public advisory group providing extramural scientific information and advice to the Administrator and other officials of the Environmental Protection Agency. The Board is structured to provide balanced, expert assessment of scientific matters related to problems facing the Agency.

<sup>3</sup> Refer to above footnote.

While some environmental standards or other sources of comparative information on products are national or international in scope, Federal agencies should also be prepared to consider unique local impacts and site-specific uses. Information based on an assessment of national or global needs, by its nature, rarely allows for the consideration of local impacts associated with how products are used, recycled, and/or discarded. Executive agency personnel are encouraged to consider local factors, where they are relevant, and not rely exclusively on national or global information. For example, although it may be generally accepted that an aqueous-based degreaser is preferred over a halogenated solvent degreaser, the environmen-

tally preferable purchasing decision may depend on whether there is sufficient local wastewater treatment capacity to deal with the aqueous waste.

There may be rare occasions where the goal of minimizing a local impact, such as smog, is in conflict with the goal of minimizing a global impact, such as ozone depletion and global climate change. In these instances, EPA encourages purchasers to engage as much as possible in applying Principle #2 and aiming to prevent pollution, thereby avoiding such trade-offs. Where there are unique local circumstances, the purchaser can make the judgment that the local conditions and impacts should be given priority.

## Ecological Priority Impacts Matrix

		Reversibility		
		Years	Decades	Centuries/ Indefinite
Geographic Scale	<i>Local/Regional</i>	<ul style="list-style-type: none"> <li>Erosion</li> <li>Conventional Pollutants</li> </ul>		
	<i>National</i>	<ul style="list-style-type: none"> <li>Hazardous Air Pollutants</li> <li>Chemical Releases</li> </ul>	<ul style="list-style-type: none"> <li>Bio-accumulative Pollutants</li> </ul>	
	<i>Global</i>			<ul style="list-style-type: none"> <li>Loss of biodiversity</li> <li>Ozone Depleting Chemicals</li> <li>Global Warming Gases</li> </ul>

*This matrix provides a few examples of how certain environmental stressors and impacts might fall into the different categories of reversibility and geographic scale considerations and is not meant to be comprehensive.*

**b) Differences among competing products—** In some situations, a purchaser may determine preferability by looking at the differences of environmental performance among competing products, rather than by comparing environmental problems. Guiding Principle 3 addresses the importance of identifying relevant attributes for a product. There might be significant differences among competing products for some of these attributes, while for others, the differences could be minimal. In purchase comparisons, Executive agencies might prefer the product or service that provides a significant

improvement over competing products, without making a determination that one environmental problem is more significant than another. For example, a product that significantly reduces toxicity might be preferable to one that makes a minimal reduction in waste reduction.

**c) Human health—**A product or a service should be at least equivalent to comparable products/services in protecting human health to be considered environmentally preferable. EPA's Science Advisory Board listed the environmental factors listed to the right as significant contributors to human health risks.

## List of High Priority Human Health Stressors

(not in any order of importance):

Ambient air pollutants

Hazardous air pollutants

Indoor air pollution

Occupational exposure to chemicals

Bioaccumulative pollutants

EPA recognizes that Executive agencies considering these three factors ( recovery time and geographic scale; differences among products; and human health) must rely on providers of products and services to supply practical environmental information on products. EPA encourages organizations that provide environmental standards or other types of comparative product information to consider these factors in evaluating and reporting environmental information for purchasers.

### **Guiding Principle 5: Environmental Performance Information**

*Comprehensive, accurate, and meaningful information about the environmental performance of products or services is necessary in order to determine environmental preferability.*

**a) Importance of Environmental Information** — Executive agency personnel will need comprehensive, accurate and meaningful life cycle-based information about the environmental characteristics of products and services in order to evaluate whether one product or service is more or less damaging than another. Even with this thorough information, however, making these evaluations can be difficult. Yet, without such information, determinations of environmental preferability are even more challenging. Executive agency personnel are encouraged to seek, and product and service providers are encouraged to provide, life cycle-based information about the environmental performance of

products and services. This information should be sought and provided in all appropriate stages of the acquisition process including, but not limited to market surveys, request for proposals, etc. (See Federal Acquisition Regulation, (FAR) 48 C.F.R. Subpart 23.7, which includes a mandate for the acquisition of environmentally preferable and energy-efficient products and services.

Executive agency purchasers may encourage product and service providers to describe their product or service's performance according to the menu of environmental attributes included in Appendix B (1).

Product and service providers' disclosure of environmental information about their products and services will also foster competition and encourage a market-driven approach to environmental improvement. The accessibility of the information to the public (both Executive agency personnel and the general public) will help ensure its accuracy and credibility.

**b) What/How Information is Conveyed** — A number of resources about the environmental performance of products or services are currently available. Two general categories of information sources can be distinguished: (1) manufacturers who provide environmental information (e.g., environmental claims, product profiles, etc.) about their products either on the label or through product literature, including advertisements; and (2) environmental information compiled, evaluated, and reported by non-governmental entities. Included in this second category are third-party certification programs that evaluate the environmental aspects of products and award symbols (e.g., "seals-of-approval") or compile "report cards" of environmental information. Non-governmental entities may also verify specific claims made by manufacturers (e.g., paper contains 30 percent recycled content).

Information conveyed through claims and seals can help Executive agency personnel identify



environmentally preferable products, depending on the types of products being purchased and the legal acquisition requirements involved. A more detailed discussion of how Executive agencies can use technical expertise and research of non-governmental entities in their environmentally preferable purchasing practices is included in Section V and Appendix D. In evaluating the environmental attribute claims made by anyone, whether they are manufacturers, vendors, or other non-governmental entities, Executive agency personnel should refer to the Federal Trade Commission's (FTC's) "Guides for the Use of Environmental Marketing Terms." (Green Guides.)

## V. Executive Agency Implementation

This section recommends steps that each agency can take to implement the environmentally preferable purchasing provisions of EO 13101.

### A. Policy directive and affirmative procurement plans

Recognizing that effective implementation of environmentally preferable purchasing will require clear direction and support from the top levels of each agency, this Final Guidance recommends that each Executive agency issue a Policy Directive promoting the practice. A sample is included in Appendix C. The policy directive should include the elements listed below:

An overall statement of policy:

- Agency personnel should seek to reduce the environmental damages associated with their purchases by increasing their acquisition of environmentally preferable products and services to the extent feasible, consistent with price, performance, availability, and safety considerations.
- Environmental factors should be taken into account as early as possible in the acquisition planning and decision-making process. (See EO 13101, Section 401.)

- Responsibility for environmentally preferable purchasing should be shared among the program, acquisition, and procurement personnel.

A commitment to the following:

- Increasing the acquisition of environmentally preferable products and services. (See EO 13101, Sections 102, 503 (c), and 602.)

Under section 6002 of the Resource Conservation and Recovery Act of 1976 and FAR Subpart 23.4, procuring agencies are required to establish affirmative procurement programs for purchasing EPA-designated recycled products. EPA recommends that agencies expand the scope of their affirmative procurement programs to include environmentally preferable products and services. EO 13101, Section 302 (a)(1)(a) calls for a Strategic Plan to include the "direction and initiatives for acquisition of recycled and recyclable products and environmentally preferable products and services."

Furthermore, Section 302 (b) (1) requires Agency Environmental Executives to "translate [this] Government-wide Strategic Plan into specific agency and service plans."

- Identifying and implementing pilot projects (See Section V (B) below).
- Establishing internal agency incentive and award programs to recognize those people, teams, and interagency work groups who are most successful at promoting the purchase of environmentally preferable purchasing (see Executive Order 13101, Section 802). Collaboration among agencies to provide education and training is highly encouraged.

In order to minimize the burden on Executive agencies, EPA recommends that each agency incorporate in its Policy Directive to promote environmentally preferable purchasing into its Affirmative Procurement and Strategic Plans. This incorporation can transpire as agencies revise their plans. Agencies should ensure that

their Policy Directive is made available to the field-level procurement and environmental personnel.

### **B. Pilot Projects**

Section 503 (b) of EO 13101 states “[A]gencies are encouraged to immediately test and evaluate the principles and concepts contained in the EPA’s Guidance on the Acquisition of Environmentally Preferable Products and Services through pilot projects to provide practical information to the EPA for further updating of the guidance.” Furthermore, Section 704 states “Each executive agency shall establish a model demonstration program. . . to demonstrate and test new and innovative approaches such as incorporating environmentally preferable...products....” into model facility programs. To help Executive agencies implement these provisions of the EO, this Final Guidance includes some suggested steps for initiating and implementing pilot acquisitions.

The suggestions that follow are based on lessons from early pilots undertaken by the General Services Administration and the Department of Defense in partnership with EPA. Case studies from these and other pilot projects are available from the Pollution Prevention Information Clearinghouse (202 260-1023) or they can be accessed through EPA’s EPP Program Web site: <[www.epa.gov/opptintr/epp](http://www.epa.gov/opptintr/epp)>.

Additional pilot acquisitions will be important testing grounds for applying the guiding principles and testing their applicability. The pilots will also provide valuable information for the development of tools and resources to facilitate widespread adoption of environmentally preferable purchasing practices.

EPA will track pilots that are planned or already underway on the EPP Web site, providing a clearinghouse for information on government-wide activities related to environmentally preferable purchasing. (See EO 13101, Section 503 (b)(4).) EPA will disseminate information

about different pilots among the agencies through the EPP Web site, updates, and fact sheets to ensure that lessons learned are shared and used to inform other pilot projects.

The discussion below further describes how these pilots and demonstration projects might proceed. EPA encourages Executive agencies to undertake pilots and use all existing sources of information and technical expertise to carry them out. EPA is committed to supporting these pilots and providing overall coordination and technical assistance, as resources allow.

**1. Selection of pilots.** Selection of pilot acquisitions is at the discretion of the individual Executive agencies. There are at least two options for how agencies can approach this selection process. First, an agency may want to identify an environmental problem that it wants or needs to address. Once the problem has been identified, the agency can develop a list of products and services that contribute to that specific environmental problem. Alternatively, an agency may start out with a product or service category for which it wants to find alternatives. In either case, criteria that agencies might wish to consider in selecting pilot acquisitions include:

- Potential for a reduction in risk to human health and the environment.
- Status on EPA’s prioritized list. Pursuant to EO 13101, Section 503 (a), and in order to assist Executive agencies focus their efforts on minimizing serious environmental impacts, EPA has developed a prioritized list of the top 20 product categories. The complete list, along with a discussion of the methodology used in its development can be found in EPA’s EPP Web site at [www.epa.gov/opptintr/epp](http://www.epa.gov/opptintr/epp).
- Existence of less harmful product or service alternatives. Alternatives could vary anywhere along the product or services’ life cycle, for example, different ways of manufacturing or disposing. Alternatives might

also include different ways of getting the same result, even if it means acquiring a completely different type of product or service.

- Feasibility/degree of flexibility in the acquisition.
- Products or services that are widely used within the Federal government and are representative or typical of the procurement system. This maximizes the pilot's potential value to others by providing lessons about the effectiveness of the guidance and increasing the likelihood that the pilot could be replicated. (See EO 13101, Section 503 (b) (1).)

**2. Implementation of pilot projects.** In implementing the pilot projects, Executive agencies can look to the process and results of projects others have completed or develop a different approach for environmentally preferable purchasing. In undertaking the pilots, agencies are encouraged to:

- Ensure the participation of environmental and procurement experts.
- Use all of the options available to them to determine the environmentally preferable attributes of products and services in their pilot projects, including the technical expertise of non-governmental entities. This is pursuant to EO 13101, Section 503 (b) (2). More specific guidance on the use of non-governmental entities is included in Appendix D.

Once a product or service has been chosen, pilots typically involve:

**a) Determining environmentally preferable products and services.** This can be accomplished by Executive agencies:

- Identifying product attributes that can serve as indicators of environmental preferability. Agencies can look to Appendix B for a menu of attributes. Selection of attributes should be tied to the most significant environmental problems or impacts.
- Collecting information from product and ser-

vice providers. This may require the development of contract language to ensure that vendors provide environmental information.

With the recent changes to the FAR and the trend toward best value contracting, agencies can now more easily consider environmental factors when making purchasing decisions. However, environmental information is often not provided by vendors. Thus, it may be necessary for Executive agency personnel to clearly request or require relevant environmental information from vendors in market surveys and proposals whenever appropriate.

- Evaluating the environmental information.

**b) Incorporating results of the environmental information research into the acquisition process to purchase environmentally preferable products and services.** While the acquisition strategy and method are determined by the purchasing agency, EPA asks that agencies select a strategy that:

- Maximizes the number of environmentally preferable product or service choices available to the purchasing agency.
- Promotes competition across products and services in terms of environmental performance.
- Stimulates product and service process innovation and continuous improvement.
- Allows for the consideration of local environmental conditions.
- Promotes a definition of environmentally preferable products and services that can improve over time.

**c) Documenting the pilot effort, including a description of how the project was initiated and implemented and the lessons learned.** A sample case study template is attached in Appendix E and is also available on EPA's EPP Web site. The results of pilot projects will be shared among Executive agencies through EPA's EPP Web site.

More specific information about pilot implementation will be made available through a variety of tools that EPA currently is developing including: an interactive training module; a “best practices guide” with examples of specific contract language that have been used by purchasing agencies; and a database of existing environmental standards that have been developed by governmental and non-governmental entities.

Section 12(d) of The National Technology Transfer and Advancement Act of 1995 (NTTAA) (Pub. L. 104-113, §12(d), 15 U.S.C. 272 note) and OMB Circular A-119 (63 FR 8546, February 19, 1998) direct Federal agencies to use both domestic and international voluntary consensus standards in lieu of government-unique standards in their procurement and regulatory activities, except where it would be inconsistent with applicable law or otherwise impractical. The Act’s purpose is to reduce the cost of procurement and regulation by requiring a Federal agency to draw upon any suitable technical standard already used in commerce or industry rather than inventing a new standard. Some of those standards might relate to evaluating environmental performance and measuring the environmental attributes of products or services. In establishing Environmental Preferable Purchasing pilot projects or planning other environmentally-sensitive activities, agencies should first determine whether there is an applicable voluntary consensus standard that would meet its needs.

The NTTAA also requires a Federal agency, when it is consistent with the agency’s mission, authorities, priorities, and budget resources, to participate in the standards-setting activities of voluntary consensus standards bodies. Such participation helps ensure the development of standards that meet the agency’s needs, including those related to Environmental Preferable Purchasing concerns. This collaboration can also promote national goals and objectives. OMB Circular A-119 specifically mentions the

need to promote the use of environmentally sound and energy-efficient materials, products, systems, services, or practices as well as the improvement of public health and safety. (See OMB A-119, Section 7a.)

In the long run, institutionalizing the purchase of environmentally preferable products and services requires that Executive agencies continue their efforts after the pilot’s are completed. Given that environmental information about products and services is still scarce, agencies should rely on all sources of information and technical expertise in making determinations about environmental preferability. To foster agencies continue acquisition of “green” products, EPA will coordinate the development and standardization of environmental information about potential product and service categories for future pilots. This effort will consist of identifying environmental performance characteristics and measurement methods and will involve technical experts both inside and outside the Federal government. Executive agencies should examine all information generated through these types of efforts. The agencies, and not the nongovernmental entities, must make all final determinations regarding environmental preferability.

The experience gained from Executive agency pilots will be key in determining the scope and nature of EPA’s long-term activities to advance Federal environmentally preferable purchasing. The lessons learned and partnerships formed from these pilots will help establish a broader infrastructure to support this initiative. EPA might use existing mechanisms or help develop new resources such as guidance, networks, and databases in support of the Federal purchasing community— to build this infrastructure. The infrastructure will help bridge the gap between the environmental and procurement expertise within the Executive agencies.

All Executive agency personnel will have a role in creating a demand for environmentally preferable products and services. Thus, the



infrastructure will also have to support the development of tools that are easy and convenient for general and diverse use.

In light of the evolving acquisition landscape and the dynamic nature of the marketplace, the infrastructure will have to be flexible. In the increased globalization of the economy and trends toward commercialization of the Federal marketplace, will also require agencies to coordinate this initiative with new international trade and standardization developments. Ultimately, the measure of this initiative's success will be in the increased availability and purchase of products and services that pose fewer adverse impacts on human health and the environment.

## VI. List of Resources

This section includes a partial list of current resources that Executive agency personnel may find useful in implementing environmentally preferable purchasing. For a more complete and updated list, please refer to EPA's EPP Web site, described below.

### A. EPA's EPP Program Web site: *www.epa.gov/opptintrlepp*

This comprehensive Web site serves as the main repository of information and resources related to environmentally preferable purchasing, including:

- Publications such as case studies, program updates and fact sheets.
- Interactive features designed to elicit information exchange such as topical discussion forums, a listing of upcoming events, a bulletin board for posting questions and comments and sharing users' experiences, as well as tools that have been helpful in implementing EPP.

- A list of top twenty prioritized product and service categories selected because they represent large volume federal procurements with environmental impacts, along with a description of the methodology used. The list is provided to assist Executive agencies in selecting pilots that will have the most effect.

The site will also include training modules, a collection of promising green contracting practices, and a database of existing environmental standards, specifications and contract language.

### B. *Federal Case Studies of Environmentally Preferable Purchasing*

EPA has developed a number of documents that describe the results of EPP pilot projects, including:

- "*Cleaners Pilot Project Case Study*" documents a collaboration between the General Services Administration and the Environmental Protection Agency.
- "*Paving the Road to Success*" describes Department of Defense's efforts to "green" a parking lot repair and maintenance contract.
- "*Leading by Example*" documents how EPA incorporated environmental features into two new buildings, the Ronald Reagan Building and the Research Triangle Park office complex.
- "*Defending the Environment at the Department of Defense*" describes the addition of environmental factors in the maintenance of the Pentagon and other DOD facilities.

In addition, Executive agencies have either initiated or are contemplating a number of other pilot projects involving products such as degreasing agents, paints, adhesives and copier paper<sup>4</sup>, and services such as conferencing.

<sup>4</sup> For those interested in EPA's views on recycling and chlorine content in copier paper, please see EPA's "Effluent Guidelines and Standards for Pulp, Paper, and Paperboard Category, Phase I," promulgated on April 15, 1998. (See 40 CFR Parts 63, 261 & 430)



Examples of where environmental preferability was factored into purchasing decisions can be found under “How to Do EPP” as well as “EPP Resources” on EPA’s EPP Web site.

### C. *Life Cycle-Based Resources*

- ***Building for Environmental and Economic Sustainability***

A life cycle-based, decision-support software tool to assist users in balancing environmental and economic concerns among products. The tool generates relative scores for alternative products based on environmental and economic performance weights that individual users can set. Although originally designed for building materials and product comparisons, the tool will be expanded to include other materials. The disks can be obtained by contacting the Pollution Prevention Information Clearinghouse at 202 260-1023.

- ***Federal Facility Pollution Prevention Project Analysis: A Primer for Applying Life Cycle and Total Cost Assessment Concepts***

### D. *Agency Environmental Catalogs*

The General Services Administration (GSA) and the Defense Logistics Agency (DLA) in the Department of Defense, the two major suppliers for the rest of the Federal government, publish product catalogs that highlight some environmental attributes. These catalogs are listed below:

- ***Environmental Products Guide***

Published by the GSA, this guide contains a list of over 3,000 products and services with environmental attributes, such as low volatile organic compound content, recycled content, energy-efficiency, etc. All products featured in the guide are available through the supply system of GSA’s Federal Supply Service. The guide is available on MUFFIN (Multi-Use File for Interagency News).

- ***Environmental Products Catalog***

Published by the DLA, this catalog includes products that meet the requirements of EPA’s Comprehensive Procurement Guidelines as well as products that help reduce hazardous waste or eliminate the use of ozone-depleting chemicals. Currently, the catalog does not have a systematic way of screening products for their environmental characteristics, so inclusion in the catalog does not necessarily connote an environmentally preferable product. A DLA pilot is underway to develop environmental standards for a category of products in the catalog. For more information, contact the Defense General Supply Center at 1 800 352-2852.

### E. *Federal Trade Commission’s Guides to the Use of Environmental Marketing Claims (Green Guides), 16 C.F.R. Part 260*

The Green Guides, recently revised in May 1998, are intended to reduce consumer confusion and prevent false or misleading use of environmental terms in product advertising and labeling. The Green Guides indicate how the Federal Trade Commission will apply Section 5 of the Federal Trade Commission Act, which prohibits unfair or deceptive acts or practices, in environmental marketing claims. The Green Guides apply to all forms of product and service marketing to the public, including advertisements, labels, package inserts, promotional materials, and electronic media. The Green Guides can be accessed via FTC’s Web site: <[www.ftc.gov](http://www.ftc.gov)> (Select “Consumer Protection”, then select “Environment”, and then select “Guides”). For hard copies, contact FTC at 202 FTC-HELP (382-4357). For questions, contact Janice Podoll Frankle at 202 326-3022.

### F. *Office of Federal Environmental Executive’s Web Site — [www.ofee.gov](http://www.ofee.gov)*

The Office of the Federal Environmental Executive (OFEE) maintains a comprehensive Web site. Updated frequently, it includes background information on OFEE’s mission, history,

and staff; resources for implementing EO 13101; best practices and success stories for environmental procurement, recycling, and waste prevention; federal agency compliance guidance; and posts information on current and upcoming conferences, activities, publications, and other relevant news. The site also showcases the Closing the Circle Awards recognizing outstanding performance towards “greening” the government. OFEE also manages an interactive forum (list serve) for the exchange of information on environmental purchasing, recycling, and waste prevention.

### G. Other Resources and Tools

- “Greening” of the Federal Logistics Information System (FLIS)

The Defense Logistics Agency is working through a multi-agency group to incorporate positive environmental attributes (such as recycled content, energy efficiency and water efficiency) into FLIS, is a database of more than 7 million supply items purchased by the Federal government. With the supply items tagged with environmental attributes, FLIS will provide Federal consumers with specific environmental information about the products they buy.

- There are a variety of other resources and tools that are currently available or under development to assist Executive agency personnel implement environmentally preferable purchasing practices. For the latest list of resources and tools, please check the EPP Web site <[www.epa.gov/opptintr/epp](http://www.epa.gov/opptintr/epp)>.

## VII. Appendices

### Appendix A Glossary of Terms

#### Appendix B Environmental Attributes

##### (1) Menu of Environmental Attributes

##### (2) Definitions for Terms on the Menu of Environmental Attributes

### Appendix C Sample EPP Policy Directive

### Appendix D Text of Office of Federal Environmental Executive and U.S. Environmental Protection Agency’s April 1998 Policy Letter on Use of Non-Governmental Entities

### Appendix E Pilot Project Case Study Template

## Appendix A Glossary of Terms

**Acquisition** - means the acquiring of products and services (including construction) by contract with appropriated funds by and for the use of the Federal government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated.

Acquisition begins at the point when agency needs are established and includes the description of requirements to meet those needs, solicitation and selection of sources, award of contracts, contract financing, contract performance, contract administration, and those technical and management functions directly related to the process of fulfilling agency needs by contract. (EO 13101, Section 201)

**biobased products** - are defined as commercial or industrial products (other than food or feed) that utilize biological products or renewable, domestic, agricultural (e.g., plant, animal and marine), or forestry materials. (EO 13101, Section 201)

**Environmentally preferable** - products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. The product or service comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal. (EO 13101, Section 201)

**Life cycle assessment** - means the comprehensive examination of a product’s environmental and economic aspects and potential impacts

throughout its lifetime, including raw material extraction, transportation, manufacturing, use, and disposal. (EO 13101, Section 201)

The International Standards Organization, through ISO 14040, has defined life cycle assessment slightly differently as follows:

Compilation and evaluation of the inputs, outputs, and the potential environmental impacts of a product system throughout its life cycle.

**Life cycle cost** - means the amortized annual cost of a product, including capital costs, installation costs, operating costs, maintenance costs and disposal costs discounted over the lifetime of the product, according to OMB Circular A-94 and Executive Order 13101, Section 201. However, this definition does not include external costs (i.e., those not borne directly by the entity that owns and operates a product/service, such as environmental costs to society at large). For the purposes of this guidance, EPA encourages agencies to consider all internal and external costs associated with a product, process, or activity throughout its entire life cycle—from raw materials acquisition to manufacture, recycling and final disposal.

**Non-governmental entities** - within the context of this guidance, non-governmental entities include, but are not limited to, voluntary consensus standards bodies (see § 12(d) of the National Technology Transfer and Advancement Act (Pub. L. 104-113, §12(d), 15 U.S.C. 272 note), environmental standard setting organizations, third party certification programs, environmental labeling or environmental “report card” programs and other environmental consulting organizations.

**Pollution prevention** - “source reduction,” as defined under the Pollution Prevention Act of 1990 (42 U.S.C. § 13102), and other practices that reduce or eliminate the creation of pollutants through: increased efficiency in the use of raw materials, energy, water, or other resources; or protection of natural resources by conservation..

The Pollution Prevention Act defines source

reduction to mean any practice that:

- Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal
- Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.

The term includes: equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

## Appendix B Lists of Environmental Attributes

Below is a list of environmental attributes that can help Executive agencies assess the environmental performance of products and services. This list, viewed from a life cycle perspective can enable Executive agency purchasers to select the product or service that minimizes adverse environmental impact. Although, it is a preliminary list of the major sources of potential human health and environmental risk, this source should not be considered definitive. Definitions for each of the attributes follow the list. Agency personnel can use this list in two ways:

- (1) To provide a framework for identifying the most important environmental attributes of products and services, and using that information in product or service comparisons.
- (2) As a check list of environmental issues to consider when designing and acquiring systems or buildings.

Not all of the environmental attributes will apply to each product or service; indeed, in some cases, information on just a few key environmental attributes will enable Executive agency personnel to determine environmental preferability.

The list of environmental attributes suggests that Federal agency personnel can use two different approaches to soliciting information from providers of products and services. The first includes consideration of releases of pollutants that occur during the life-cycle of the product. In the research on product life-cycle assessments that have been conducted over the past several years, these releases are known as "inventory" items. Alternatively, the risks (or risk surrogates) associated with various life-cycle stages of a product can be identified. This approach seeks to identify actual environmental impacts rather than solely environmental releases. When calculating risks, general population (both environmental and human) exposures and occupational exposures need to be considered. Executive agencies may consider using both risk and release data in their decisions to purchase environmentally preferable products and services.

If product and service providers use this list as a basis for making environmental marketing claims, the claims should conform to the FTC's Guides for the Use of Environmental Marketing Claims (Green Guides), 16 C.F.R. Part 260). A copy of the Green Guides can be obtained through FTC's Web site <[www.ftc.gov](http://www.ftc.gov)>. Any party making a claim (or an independent third party that is certifying a claim) concerning a product's environment attribute must, at the time the claim is made, possess and rely upon a reasonable basis for substantiating the claim (16 C.F.R. § 260.5). A reasonable basis consists of competent and reliable evidence. In the context of environmental marketing claims, such substantiation will often require competent and reliable scientific evidence, defined as tests, analyses, research, studies, or other evidence based on the expertise of professionals in the relevant area, conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results.

The Green Guides state that either an unquali-

fied or inadequately qualified claim that a product is "environmentally preferable" implies to consumers that a product is generally environmentally superior to others. "Environmentally preferable" claims should be accompanied by language limiting the superiority claim to the particular attributes that can be substantiated. For example, Green Guides state that environmental seals-of-approval should be accompanied by information on product labels explaining the basis for the award.

### **Appendix B(1) Menu of Environmental Attributes**

Executive agency personnel are reminded that the attributes listed and defined below are not comprehensive. In addition, Executive agency personnel should note that not all of these attributes will be applicable to every product or service. Furthermore, different attributes may be applicable to each product or service life cycle stage being considered.

#### *A. Natural Resources Use*

- *Ecosystem impacts*, such as endangered species, wetlands loss, fragile ecosystems, erosion, animal welfare, etc.
- *Energy consumption*, which can serve as an indicator of acid rain, climate change potential, air pollution, and associated human health risks.
- *Water consumption* which can serve as an indicator of water quality impacts, risks to aquatic ecosystems, and degradation of drinking water resources.
- *Non-renewable resource consumption*, which can serve as an indicator of acid rain, climate change potential, air pollution, and associated human health risks and risks to endangered species and fragile ecosystems.
- *Renewable resource consumption*, which can serve as an indicator of loss of biodiversity and increased erosion. Although in many cases the use of renewable resources is con-



sidered environmentally preferable to use of nonrenewable resources, products made from renewable resources may also have negative environmental impacts (e.g., ethanol is derived from a renewable resource, yet its manufacture can lead to releases of VOCs).

**B. Human Health and Ecological Stressors**

- Bioaccumulative pollutants.
- Ozone depleting chemical global warming gases.
- Chemical releases (Toxics Release Inventory (TRI) list chemicals or others.)
- Ambient air releases (other than TRI, including volatile organic compounds and particulate matter).
- Indoor environmental releases (consumer and occupational).
- Conventional pollutants released to water.
- Hazardous waste.
- Non-hazardous solid waste (e.g., municipal solid waste, large volume waste, surface impoundments).
- Other stressors.

**C. Hazard Factors Associated With Materials**

- Human Health Hazards:
  - acute toxicity
  - carcinogenicity
  - developmental/reproductive toxicity
  - immunotoxicity
  - irritancy
  - neurotoxicity
  - sensitization
  - corrosivity

- flammability
- reactivity
- other chronic toxicity

- Ecological Hazards:

- aquatic toxicity
- avian toxicity
- terrestrial species toxicity

**D. Positive Attributes**

The attributes listed below are viewed as positive because they either serve as proxies for minimizing natural resource use or avoiding waste and the associated environmental impacts identified in A, B, and C. These attributes also are linked to authorities and requirements in statutes or executive orders that encourage the Federal government to promote their use. “Recyclability” and “recycled content” are attributes encouraged under RCRA. There are executive orders that encourage Federal agencies acquire biobased products, and to promote energy efficiency and water conservation. “Durability”, “reusability”, “take-back”, and “reconditioned or remanufactured” are positive attributes that encourage source reduction. “Product disassembly potential” increases the potential for source reduction and recycling of product components. Agencies should note that the presence of these attributes alone does not automatically make a product or service environmentally preferable. When making purchasing decisions, executive agencies should consider a range of environmental impacts associated with products from a life cycle perspective when making purchasing decisions.

- Recycled content
- Recyclability
- Product disassembly potential
- Durability
- Reusability



- Reconditioned or remanufactured
- Take-back
- Biobased
- Energy efficiency
- Water efficiency
- Other attributes with positive environmental effects

## Appendix B(2) Definitions for Terms on the List of Environmental Attributes

### A. Natural Resource Use

- (1) *Ecosystem impacts*- adverse impacts on the ecosystem, for example, endangered species, wetlands loss, fragile ecosystems, erosion.
- (2) *Energy consumption*- the total amount of energy consumed for product or service manufacture, use, and disposal. Different sources of energy are associated with different environmental impacts.
- (3) *Water consumption*- refers to the water resources that are consumed or used, which can serve as an indicator of water quality impacts, risks to aquatic ecosystems, and degradation of drinking water resources.
- (4) *Non-renewable resource consumption*- those resources consumed that are not renewable in 200 years (e.g., fossil fuels, minerals). This can serve as an indicator of acid rain, climate change potential, air pollution, and associated human health risks and risks to endangered species and fragile ecosystems.
- (5) *Renewable resource consumption*: refers to a continuum of resources, from those that are renewable in under 200 years, such as timber-based products, which can serve as an indicator of biodiversity loss and increased erosion, to those which are renewable in less than 2 years, such as grain-based feed stocks.

### B. Human Health and Ecological Stressors

- (1) *Bioaccumulative pollutants*- those chemicals that bioconcentrate in the environment as described in the Significant New Use Rule for new chemicals. (40 CFR 721.3.)
- (2) *Ozone depleting chemicals*- defined in the Protection of Stratospheric Ozone Final Rule. (58 FR 65018, December 10, 1993.)
- (3) *Global warming gases*- listed in Climate Change 1992, The Scientific Report on the IPCC Scientific Assessment. (Table A 2.1.)
- (4) *Chemical releases*- ambient releases of chemicals of concern such as those reported in the TRI of the Emergency Planning and Community Right-to-Know Act. The current list is reported in 40 CFR 372.65.
- (5) *Ambient air pollutants*- pollutants for which ambient air quality standards have been developed. (40 CFR 50.4- 50.12.) These pollutants include nitrogen dioxide, sulfur dioxide, ozone precursors, particulate matter, carbon monoxide, and lead.
- (6) *Indoor environmental releases*- releases to an indoor environment of potentially hazardous chemicals such as those reported in the TRI in both occupational and consumer settings.
- (7) *Conventional pollutants*- defined in 40 CFR 401.16. These pollutants include biochemical oxygen demand, total suspended solids, fecal coliform, pH, and oil and grease.
- (8) *Hazardous waste*- Quantity of Resource Conservation and Recovery Act (RCRA) hazardous waste as defined in 40 CFR 261.3.
- (9) *Non-hazardous waste*- solid waste as defined in 40 CFR 261.3. Includes municipal solid waste, large volume waste (e.g., oil and gas, mining, etc.) and solids disposed of in surface impoundments.
- (10) *Other stressors*- any other stressors associ-

ated with the product or service but not captured elsewhere.

### C. Factors Associated With Materials

#### Human Health Hazards

- (1) **Acute toxicity**- the potential of a chemical substance to cause adverse health effects from short-term exposure.
- (2) **Carcinogenicity**- defined by EPA through a weight-of-evidence approach. (51 FR 33992, September 24, 1986 and 61 FR 17960, April 23, 1996.) When quantification is possible, slope factors or other measures such as LED10 can also be used to express carcinogenic potency.
- (3) **Development/reproductive toxicity**- adverse effects on the developing organism that result from chemical exposure prior to conception (i.e., either parent), during prenatal development, or, postnatally, to the time of sexual maturation. (56 FR 63798, December 5, 1991.) Reproductive toxicity is any adverse effect on an organism's ability to reproduce. (61 FR 56274, October 31, 1996.)
- (4) **Immunotoxicity**- any adverse effect on an organism's immune system that results from exposure to a chemical substance.
- (5) **Irritancy**- defined according to the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR part 1910.1200) or other standard scales such as EPA or Organization for Economic Cooperation and Development (OECD) Guidelines (EPA 712-C-98-196, August, 1998.)
- (6) **Neurotoxicity**- any adverse change in the development, structure, or function of the central and peripheral nervous system following exposure to a chemical agent (59 FR 42272, August 17, 1994.)
- (7) **Sensitization**- an immunologically mediated cutaneous reaction to a substance. EPA test

methods for evaluating sensitization potential are found in 40 CFR part 798.4100.

- (8) **Other chronic toxicity**- the potential of a chemical substance to cause an adverse effect on any organ or system following absorption and distribution to a site distant from the toxicant's entry point.
- (9) **Corrosivity**- dermal corrosion is defined by EPA as the production of irreversible tissue damage in the skin following application of a test substance. Test methods for evaluating dermal corrosion can be found in the harmonized Office of Prevention, Pesticide and Toxic Substances (OPPTS) guidelines for acute dermal irritation. (OPPTS 870.2500.) These guidelines harmonize the TSCA, FIFRA and OECD requirements in this area. The OSHA HazCom Standard listed above for irritancy also explicitly or implicitly covers corrosivity, sensitization, neurotoxicity, and all other toxic endpoints.
- (10) **Flammability**- defined by the OSHA HazCom Standard (29 CFR 1910.1200) and ignitability is defined in 40 CFR part 261.21.
- (11) **Reactivity**- defined in 40 CFR 261.23.

#### Ecological Hazards

- (1) **Aquatic toxicity**- the potential of a substance to have an adverse effect on aquatic species. Measurement methods for aquatic toxicity can be found in 40 CFR part 797, subpart B.
- (2) **Avian toxicity**- the potential of a substance to have an adverse effect on avian species.
- (3) **Terrestrial species toxicity**- the potential of a substance to have an adverse effect on terrestrial species, other than man.

### D. Positive Attributes

The following attributes are generally viewed as positive because they either serve as proxies for

minimizing natural resource use or avoiding waste and the associated environmental impacts identified in A, B and C. Agencies should note that the presence of these attributes alone do not automatically make a product or service environmentally preferable. Executive agencies should consider a range of environmental impacts associated with products from a life cycle perspective when making purchasing decisions.

(1) **Recycled content:** Materials that have been recovered from the solid waste stream, either during the manufacturing process (pre-consumer), or after consumer use (post-consumer) (see Federal Trade Commission Environmental Marketing Guides mentioned above for more detail). Executive agencies are required to purchase EPA-designated items with recycled content (40 C.F.R. Part 247). Purchasers may want to consider whether the material contains pre-consumer or post-consumer recycled content. Recycled content, under the Federal Trade Commission guides, includes recycled raw material, that would have otherwise been incinerated or land filled, as well as used, reconditioned and remanufactured components. For products that are only partially made of recycled material, a recycled claim should indicate the percentage, by weight, of recycled content in the finished product. Unless it is otherwise clear from the context of the sale, for products that contain used, reconditioned or remanufactured components, a recycled claim should make clear that such components are used, reconditioned or remanufactured. Manufacturer's scrap material that would have, in any case, been incorporated into the product does not qualify as recycled under the Federal Trade Commission's guides. Refer to 16 C.F.R. § 260.7(e).

(2) **Recyclability:** Refers to products or materials that can be collected, separated or otherwise recovered from the solid waste stream for reuse, or in the manufacture or assembly

of another package or product, through an established recycling program. For products that are made of both recyclable and non-recyclable components, the recyclable claim should be adequately qualified to avoid consumer deception about which portions or components are recyclable. In addition, unless recycling collection programs for the product are available to a substantial majority of communities or consumers where the product is sold, claims of recyclability need to be qualified to indicate the limited availability of recycling collection sites. A product that is made from recyclable material, but, due to its shape, size or some other attribute, is not accepted in recycling programs for such material, should not be marketed as recyclable. Refer to the FTC Environmental Marketing Guides, 16 C.F.R. §260.7(d).

(3) **Product disassembly potential:** Refers to the ease with which a product can be disassembled for maintenance, parts replacement, or recycling.

(4) **Durability:** Refers to the expected lifetime of the product.

(5) **Reusability:** Refers to how many times a product may be reused. Since reusable products generally require more up-front costs than disposable products, they are often subjected to a cost/benefit analysis in order to determine the life cycle cost .

(6) **Reconditioned/Remanufactured:** Refers to the process of restoring used, durable products to meet original performance standards. Remanufacturing has many other names, including: rebuilding (automotive sector); retreading (tire remanufacturing); reconditioning; and refurbishing. Remanufacturing results in less waste and raw material and energy use.

(7) **Take-back:** Refers to the manufacturer or designee accepting a return of end-of-life product; who pays for the transportation of the product may be situation-specific.

(8) **biobased:** Refers to a commercial or industrial product (other than food or feed) that utilizes biological products or renewable, domestic, agricultural (plant, animal and marine), or forestry materials.

(9) **Energy efficiency:** Refers to products that meet or exceed the Department of Energy (DOE)/Federal Energy Management Program's product energy efficiency recommendations which identify the top 25 percent of energy efficiency for all similar products or that meet the energy efficiency criteria of the Environmental Protection Agency

(EPA)/DOE Energy Star program.

(10) **Water efficiency:** Refers to any plumbing fixtures that meet or exceed the Department of Energy's Federal Energy Management Program recommended performance standards for flow rates.

(11) **Other attributes:** Refers to any other positive attributes that are associated with the product but are not listed here.

## Appendix C      **Sample Environmentally Preferable Purchasing Policy Directive**

### **Environmentally Preferable Purchasing Policy**

The purchase and use of products and services can have a profound impact on the environment. [NAME OF DEPARTMENT OR AGENCY] recognizes the positive impact that it can make on the environment through the purchasing decisions that its employees make. It is the intent of [NAME OF DEPARTMENT OR AGENCY] to integrate environmental considerations into every aspect of acquisition. Although the environment may not be the core of our professional mission, the integration of these factors will result in economic, health, and environmental gains that will further our goals.

#### **Overall Statement of Policy**

- Agency personnel should seek to reduce the environmental damages associated with their purchases by increasing their acquisition of environmentally preferable products and services to the extent feasible, consistent with price, performance, availability, and safety considerations.
- Environmental factors should be taken into account as early as possible in the acquisition planning and decision-making process.
- Responsibility for environmentally preferable purchasing should be shared among the program, acquisition, and procurement personnel.
- Environmentally preferable purchasing represents one important component of this agency's commitment to pollution prevention.

[NAME OF DEPARTMENT OR AGENCY] is committed to the following:

- Increasing the acquisition of environmentally preferable products and services.
- Identifying and implementing pilot projects to test the best ways to incorporate environmental preferability into acquisition.
- Establishing incentive and award programs to recognize those people, teams, and interagency work groups who are most successful at promoting the purchase of environmentally preferable products.



## Appendix D Text of Office of Federal Environmental Executive and U.S. Environmental Protection Agency's April 1998 Policy Letter on Use of Non-Governmental Entities

### *Pilot Project Approach on Use of Non-Governmental Entities to Implement Section 503 of Executive Order 12873 on Federal Acquisition, Recycling, and Waste Prevention*

#### **Background:**

Section 503(a) of Executive Order 12873 directs EPA to "issue guidance that recommends principles that Executive agencies should use in making determinations for the preference and purchase of environmentally preferable products." Section 503 (b) states that Executive agencies shall use EPA's guidance to "identify and purchase environmentally preferable products" and to "modify their procurement programs by reviewing and revising specifications, solicitation procedures, and policies as appropriate."

On September 28, 1995, EPA issued a proposed Guidance on the Acquisition of Environmentally Preferable Products and Services which includes a series of principles that are intended to guide Federal purchasers as they consider environmental preferability in their acquisition decisions. This proposed Guidance was the culmination of numerous discussions EPA had with staff from key purchasing agencies and departments as well as representatives from industry and environmental and other interested organizations.

In EPA's proposed Guidance (Supplementary Information - Section III (E)), EPA acknowledged the existence of non-governmental entities -- including, but not limited to, environmental standard setting organizations, third party certification programs, environmental labeling or environmental "report card" programs and other environmental consulting organizations -- to which Executive agencies, in appropriate circumstances, may refer for technical assistance<sup>1</sup> in meeting the Executive Order goals.

In this paper, EPA suggests a pilot project approach to test the utility of various means of using non-governmental entities to achieve environmentally preferable purchasing goals. This pilot project approach will be publicized through a Notice of Availability in the Federal Register. Ultimately the findings from the pilot project approach will provide practical information to EPA in the development of its final Guidance.

#### ***Spectrum of Approaches***

First, it must be emphasized that Executive agencies may choose to implement EPA's proposed Guidance without technical assistance from non-governmental entities. A number of on-going environmentally preferable purchasing (EPP) pilot projects are relying successfully on the in-house environmental and procurement expertise of EPA and the partnering Executive agency (e.g., General Services Administration and the Department of Defense). Therefore, this paper should in no way be interpreted as an EPA endorsement of a specific non-governmental entity, organization or program, nor should

<sup>1</sup> For example, Executive agencies might seek technical assistance from non-governmental entities to help Executive agencies:

(a) analyze life cycle and multiple environmental attributes;

(b) analyze basic environmental performance characteristics for specific categories of products/services;

(c) identify environmentally preferable product/service criteria for a given product category based on agencies' core environmental values; and

(d) identify products/services in a given category which meet agencies' predetermined set of environmental performance criteria.

Executive agencies are reminded that they must critically examine all information from non-governmental entities. The Executive agencies involved, and not the non-governmental entities, must make all final determinations regarding environmental preferability.



agencies feel obligated in any way to utilize the technical assistance of such entities.

However, to the extent that the Agencies are interested in tapping the expertise that resides outside the Government, EPA concludes that Agencies, in carrying out existing mandates for environmentally preferable purchasing may use non-governmental entities in accordance with appropriate operating guidelines. Executive agencies should note that they must avoid favoring, without reasonable justification, one non-governmental entity over another.

Executive agencies should also inform their personnel about the Federal Trade Commission's Guides for the Use of Environmental Marketing Claims which govern environmental claims made by anyone, including manufacturers or environmental labeling or "report card" programs.

Thus far, EPA has identified a number of different potential approaches for how Executive agencies could use the technical expertise of non-governmental entities in furthering their environmentally preferable purchasing goals. All of the potential approaches described below require that the Executive agencies involved critically examine all information from non-governmental entities. The Executive agencies involved, and not the non-governmental entities, must make all final determinations regarding environmental preferability.

This list of approaches is not comprehensive. Agencies are encouraged to bring to EPA's attention other potential approaches for using non-governmental entities. In utilizing an approach, agencies have considerable discretion in incorporating environmental preferability into procurement decisions. For example, environmental considerations that result in limiting competition or in the payment of a price premium for goods or services may be reasonably related to an agency's definition of its "minimum needs" and therefore permissible.

***Approach 1: Use of Existing Information***

***Developed by Non-governmental Entities***

Executive agencies' personnel could use existing information developed by non-governmental entities regarding environmental preferability of products and services, along with other available information (such as product performance and price) in defining the requirements for procurements and making more informed procurement and acquisition decisions. For example, Agencies might consider undertaking pilot projects to test the utility of non-governmental entities in the following instances:

- a) Executive agencies could examine and evaluate already existing environmental criteria or standards developed by non-governmental entities for products or product categories (as well as for services or service categories), along with other available information, to identify a range of environmental attributes which can inform the agencies' own determinations of environmental preferability. Those determinations of environmental preferability could then translate into agency requirements, or at the very least, important criteria in the evaluation and selection of competing vendors or manufacturers.
- b) In buying commercial items off-the-shelf, Executive agencies could inform their personnel to take into consideration environmental information (e.g., environmental claims, product profiles, "report cards", or environmental seals along with accompanying explanation, etc.) either displayed on the products or provided through product literature or other materials (e.g., newsletters) in making purchasing decisions. This environmental information could be provided by vendors or manufacturers or by non-governmental entities. Executive agency personnel should be cautioned to avoid making their purchasing decisions on broad claims of environmental superiority.<sup>2</sup>
- c) At the request of vendors or manufacturers,

an Executive agency could include in its catalogs or schedules symbols from non-governmental entities denoting certain environmental characteristics, provided that (1) these symbols are accompanied by additional information that specify the reasons why a product has been "tagged" with a symbol; (2) the catalogs or schedules clearly emphasize that Executive agency personnel are not required to purchase products or services that are tagged; and (3) procurement officials should not rely on the symbols to make purchasing decisions, but instead, are required to take into account the environmental information underlying the symbol for relevance to the procurement.<sup>3</sup> Agencies including such symbols in their schedules or catalogs should ensure that their employees receive appropriate guidance in utilizing this approach. Vendors or manufacturers who choose not to obtain a seal or other symbols denoting certain environmental characteristics from non-governmental entities may nevertheless also request that environmental information about their products be included in the agency's catalogs or schedules.

This option will be piloted on a limited basis so that it can be closely monitored to determine its effectiveness.

- d) On its own initiative, an Executive agency could tag products or services in its catalogs or schedules with its own symbol which

denotes environmental characteristics that the Executive agency, through its own determination, deems preferable. This symbol could be based on existing information (e.g., environmental claims, product profiles, "report cards", or environmental seals along with accompanying explanation, etc.) available from non-governmental entities or from vendors or manufacturers themselves. This symbol should be accompanied by specific information explaining the basis for "tagging" a product as well as the source of the information. Catalogs or schedules should emphasize that Executive agency personnel would not be required to purchase products or services which are tagged, but are requested to take into account the environmental information underlying the symbol for relevance to the procurement.

**Approach 2: Use of Non-governmental Entities as Certifiers of Specific Claims**

Executive agencies could require vendors or manufacturers to have specific, measurable and verifiable claims certified by qualified non-governmental entities. A product's percentage content of volatile organic compounds (VOCs), for example, would be considered measurable and verifiable. The rationale behind this approach is that credible certification by non-governmental entities (or actual evidence from vendors or manufacturers themselves) could increase the

<sup>2</sup> The following excerpt from FTC's "Guides for the Use of Environmental Marketing Claims" illustrates this point: A product is advertised as "environmentally preferable." This claim is likely to convey to consumers that this product is environmentally superior to other products. If the manufacturer cannot substantiate this broad claim, the claim would be deceptive. The claim would not be deceptive if it were accompanied by clear and prominent qualifying language limiting the environmental superiority representation to the particular product attribute or attributes for which it could be substantiated, provided that no other deceptive implications were created by the context. (From FTC's "Guides," (a) General Environmental Benefit Claims, Example 6)

<sup>3</sup> The following excerpt from FTC's "Guides for the Use of Environmental Marketing Claims" provides an example of this point: A product label contains an environmental seal, either in the form of a globe icon, or a globe icon with only the text "Earth Smart" around it. Either label is likely to convey to consumers that the product is environmentally superior to other products. If the manufacturer cannot substantiate this broad claim, the claim would be deceptive. The claims would not be deceptive if they were accompanied by clear and prominent qualifying language limiting the environmental superiority representation to the particular product attribute or attributes for which they could be substantiated, provided that no other deceptive implications were created by the context. (From FTC's "Guides," (a) General Environmental Benefit Claims, Example 5)

credibility of claims that may be displayed on products. Such certification, or a vendor's or a manufacturer's ability otherwise to prove particular claims of environmental preferability, could be a prerequisite for competitive consideration.

This approach assumes that (1) no particular non-governmental entity is favored (without reasonable justification) over any other non-governmental entity; and (2) vendors or manufacturers who choose not to be certified by non-governmental entities are provided the opportunity to present credible evidence that their products or services conform to established standards.

***Approach 3: Use of Non-government Entities as "Consultants" under Advisory and Assistance Contracts***

Pursuant to the competitive contracting process as set forth in the Federal Acquisition Regulation (FAR), non-governmental entities could provide consulting services to Executive agencies. Non-governmental entities may provide advice and recommendations about environmentally preferable purchasing, for example, through the identification of key environmental characteristics of product categories. Under this approach, Executive agencies would define environmental preferability with the assistance of a non-governmental entity on a procurement-by-procurement basis. As per FAR Subpart 9.5, Executive agencies must fully consider the potential for conflict of interest concerns where a non-governmental entity may be unable to render impartial advice or assistance because of private business or financial interests. Also, Executive agencies should make every effort to maximize competition in awarding these advisory and assistance contracts to avoid any exclusive or preferential relationship with any particular non-governmental entity. Finally, the environmental preferability standards developed under this approach could be used as a basis for defining the agency's "minimum needs" in particular procurements and for developing criteria for evaluating competing vendors.

***EPA's Suggested Next Steps***

One of the key tenets of EPA's proposed Guidance is to have Executive agencies undertake a series of pilot projects that can demonstrate the applicability and workability of the guiding principles as contained in EPA's proposed Guidance. The success of our efforts depends on learning from these pilot projects and sharing the results widely among the different Executive agencies. It is in this spirit that EPA strongly encourages Executive agencies to enter into pilot projects that test the potential approaches for using non-governmental entities as described above.

Moving forward with this non-governmental entities pilot approach is desirable for a number of reasons: 1) EPA can capture the lessons from the pilots and share them among the Executive agencies so that there is no duplication of effort; 2) we can determine where the use of expertise outside of the government is appropriate and useful and where it is not; and 3) the net effect of creating a market for such EPP services may encourage increased competition among existing and new organizations or programs that can support Federal procurement of environmentally preferable products and services. Ultimately, the results from this and other pilot project approaches will help Executive agencies identify the most effective and practical ways to achieve the goals of environmentally preferable purchasing.

EPA recognizes that any pilot project involving a non-governmental entity will initially raise practical questions such as which non-governmental entities are legitimate and are credible and which are not; is there a need to certify a certifier? While EPA is not currently able to offer an "approved" list of non-governmental programs best suited to assist the agencies, it is prepared to provide assistance to Executive agencies on an individual procurement-by-procurement basis. As an initial step, Agencies are directed to the list of questions for evaluating non-governmental entities contained in Section

III, [E] Third Party Certification Programs of EPA's proposed Guidance on the Acquisition of Environmentally Preferable Products and Services. The list of questions is included as Appendix 1 of this letter.

Specifically, within the context of this non-governmental entity pilot project approach, EPA's Environmentally Preferable Purchasing Program in the Office of Pollution Prevention and Toxics, is prepared to:

- 1) assist Executive agencies in structuring a pilot project involving non-governmental entities, including providing support to assess the utility of non-governmental entities on an individual procurement-by-procurement basis;
- 2) seek out and identify non-governmental entities who have expertise in the area of environmentally preferable purchasing through a variety of means, such as, but not limited to, Federal Register notices or announcements in the Commerce Business Daily (CBD). To make such a task manageable, EPA will identify, with help and guidance from the agencies, a few product or service categories upon which to focus at first. If successful, further federal register notices or CBD announcements could be issued focusing on additional product or service categories;
- 3) assemble a list of product categories for which eco-labeling criteria and standards have been established, both domestically and internationally for agencies to consider in developing their own criteria for environmen-

tal preferability. If appropriate, EPA will assist in such evaluations; and

- 4) assist Executive agencies in structuring an environmentally preferable purchasing pilot project that does not involve non-governmental entities.

In turn, Executive agencies should consult with EPA when undertaking pilots which may raise environmental issues beyond their expertise (e.g., where a pilot involves consideration of the way a product is made).

Furthermore, Executive agencies who choose to undertake pilots under option 1(c) should consult with EPA in developing a written process or procedure for the role seals or symbols and the associated information would play in their pilots. For example, agencies should provide clear guidance which specifies the importance of considering the underlying criteria, not the seal or the symbol.

As EPA and Executive agencies embark on these activities, EPA will continue to explore a number of different ways that it can address issues which are raised within the pilot project context more definitively. Executive agencies will be kept informed of developments on these issues. Agencies should inform EPA of their efforts in environmentally preferable purchasing, whether such efforts involve non-governmental entities or not in order to share lessons learned among other agencies and to aid in the evaluation of the pilot projects. In this way, EPA can make EPP concepts more practical for use within the Federal acquisition context. To facilitate this,

Agencies are requested to send the attached FAX BACK form. Pilot projects involving non-governmental entities will be evaluated over a period of the next three years. EPA will use the findings from that evaluation to inform the development of its final Guidance.

For further information and to inform EPA of pilot project efforts, please contact:

Eun-Sook Goidel, Program Manager,  
Environmentally Preferable Purchasing  
Program, Pollution Prevention Division,  
Office of Pollution Prevention and Toxics  
(202)260-3296; (202)260-0178 FAX;  
e-mail: [goidel.eunsook@epamail.epa.gov](mailto:goidel.eunsook@epamail.epa.gov)

For legal issues associated with use of non-governmental entities in environmentally preferable purchasing, please contact:

Tali Zemel, Esq., Office of General Counsel  
(202)564-4708;  
e-mail: [Zemel.Avital@epamail.epa.gov](mailto:Zemel.Avital@epamail.epa.gov)



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**Attachment 1. List of Questions for Evaluating Non-Governmental Entities<sup>4</sup>**

**E**xecutive agencies should consider the following list of questions in evaluating non-governmental entities before using their expertise to further internal environmental preferable purchasing goals. Does the program have:

- an open, public process that involves key stakeholders (businesses, environmental, consumer groups, and states, etc.) in developing its criteria or standards?
- award criteria, assumptions, methods, and data used to evaluate the product or product categories that are transparent (i.e., they are publicly available, easily accessed, and understandable to the lay person)?
- a system of data verification and data quality?
- a peer review process (with representation of all stakeholders) for developing the standards or criteria?
- criteria that are developed based on a "systems" or life cycle approach (i.e., "cradle to grave")?
- an outreach program to educate the consumer, which includes clear communications to consumers that provide key information concerning environmental impacts associated with the product?
- an established goal of updating standards or criteria as technology and scientific knowledge advance?
- authority to inspect the certified product's facility to ensure compliance with the standards or criteria?
- testing protocols for the certified products that ensure testing is conducted by a credible institution?
- access to obtaining the seal by small-and medium-sized companies (e.g., the cost of the seal is not so high as to prevent access by smaller companies)?
- compliance with the Federal Trade Commission's (FTC) Guides for the Use of Environmental Marketing Claims?

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<sup>4</sup> Excerpted from EPA's proposed "Guidance on the Acquisition of Environmentally Preferable Products and Services."

FAX BACK FORM

Please Inform EPA about Your Pilot Project Involving the Use of Non-governmental Entities in Environmentally Preferable Purchasing!

Name: \_\_\_\_\_  
Department/Agency: \_\_\_\_\_  
Address: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_  
FAX: \_\_\_\_\_  
E-mail: \_\_\_\_\_

**Type of Acquisition/Procurement:**  
(e.g., small purchase, credit card purchase, competitive bid, etc.)

*Product/Service Category:*

*Name of Non-Governmental Entity:*

Type of Non-Governmental Entity (check all that apply):

- environmental standard setting organizations
- third-party environmental certification programs
- environmental labeling organizations
- environmental report card organization
- environmental consultants
- other (please specify: \_\_\_\_\_)

Type of Information/Assistance Sought from Non-Governmental Entity:

- general environmental information about a product/service category;
- analyze life cycle and multiple environmental attributes
- analyze basic environmental performance characteristics for specific categories of products/services
- identify environmentally preferable product/service criteria for a given product category based on agencies' core environmental values
- identify products/services in a given category that meet agencies' predetermined set of environmental performance criteria; and
- other (please specify: \_\_\_\_\_)

Please FAX BACK to: Eun-Sook Goidel at U.S. EPA 202 260-0178.

## Appendix E EPP Case Study Template

### *Project Basics*

- What does your agency/department/office do? Where is it based?
- What, if anything, is unique about your efforts to purchase environmentally preferable products and services?
- What were the motivating factors behind the project?
- What kinds of products and services are you purchasing with environmental attributes in mind? Do you focus on a particular group of products or services? If so, why?

### *Implementation*

- How have you incorporated environmental attributes into the purchasing process? Did you alter the established procurement process in any way to accommodate environmentally preferable products?
- What obstacles did you encounter (if any) in incorporating environmental attributes into the purchasing process? How were these obstacles dealt with?
- Did you incorporate environmental attributes into procurement specifications, standards, or policies; requests for proposals; bid announcements; manufacturer certifications; etc.? (If so, please provide examples.)

### *Product and Service Evaluation*

- How do you evaluate the products or services you purchase that have environmental attributes? Do you rely solely on information provided by vendors, or have you developed your own criteria or your own evaluation system?
- Do you consider more than one attribute when evaluating a certain product (e.g., considering both recycled-content and bleaching when purchasing paper products)? If so, how do you go about taking multiple attributes

into consideration?

- Are products or services that meet your environmental attributes priced competitively with other comparable products or services? Do you have a price preference for products or services meeting your environmental criteria?

### *Vendor Reactions*

- How do you inform vendors about your preference for products with environmental attributes?
- Were vendors already providing environmental information before you requested it?
- How did vendors react to your request for environmental attributes of their products?

### *Customer (End-User) Reactions*

- Who has been most affected by the changes brought about by your efforts to purchase environmentally preferable products (i.e., procurement staff, other employees, contractors, citizens, end-users)? How have they been affected?
- Have you attempted to inform or educate your customers about products' environmental attributes? How?
- How have customers responded to the environmental information you provided? Are you keeping track of their responses?
- Have customers been pleased with the performance of environmentally preferable products (especially when compared to products that are not considered environmentally preferable)?

### *Project Results*

- How are you tracking/measuring the success of your Environmental Preferable Purchasing efforts? Have you been able to quantify your success in terms of positive effects on the environment?

- Have any cost savings resulted from the purchase of environmentally preferable products? How were these calculated?
- Do you think your experience with purchasing environmentally preferable products could be valuable to others who purchase different products?
- What are your future plans regarding the purchase of environmentally preferable products? Do you expect to incorporate additional attributes or examine other product categories? What are some of the opportunities and challenges you foresee in expanding your Environmental Preferable Purchasing efforts?



# Appendix N

## 1999 White House Closing the Circle Award Winners

### **Model Facility—Civilian**

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Team/Group Award to:

U.S. Department of Transportation, U.S. Coast Guard Support Center

Pollution Prevention Committee, Elizabeth City, NC

Captain Joseph Bridger, III, Commander Michael Herring, Murray Chappell, Samuel Mickey, Sr.,

**P2 Challenges and Successes at Support Center Elizabeth City**

Team/Group Award to:

United States Postal Service, Ft. Worth District, Ft. Worth, TX

Charles Losasso, Stuart Pingelton, Ms. Ujwala Tamaskar

**First Green Post Office**

Team/Group Award to:

Department of the Interior, National Park Service/National Capital Region,

George Washington Memorial Parkway

Michael Wilson, Dottie Marshall, Richard Foster, Steven Doulis

**Recyclable Wood Polymer Lumber Used for Raised Trail at Theodore Roosevelt  
Island (DC)**

### **Model Facility—Military**

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Team/Group Award to:

Department of Defense, NAS JRB New Orleans Environmental Department, Belle Chasse, LA

Mr. Marion Fannaly

**Procurement through Disposal, NAS JRB New Orleans has made a difference**



Individual Award to:

Department of Defense, 341st Transportation Squadron, Malmstrom AFB, MT

Ssgt. Chad A. Pinkerton,

**Innovative Solutions in Painting Operations**

Team/Group Award to:

Department of Defense, U.S. Air Force, Air Combat Command, Seymour Johnson, 4th Civil Engineer Squadron

Donald Abrams, Emilee Blount, Dean Chastain, Ronald Heyden

**F-15 Squadron Operation Facility, Seymour Johnson AFB**

Individual Award to:

DoD, 415th Base Support Battalion, Kaiserslautern, Germany

Bob Ackley,

**415th Base Support Battalion's Separation of Recyclable Trash (SORT) Program**

## **Sowing the Seeds of Change—Civilian**

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Individual Award to:

General Services Administration, National Capital Region, Washington, DC

Albert Greene

**Leading Pesticide Reform in Public Buildings**

Team/Group Award to:

U. S. Postal Service, Dallas Purchasing and Materials Service Center, Dallas, TX

Donald Jones, Leonard Economou

**Electronics Recycling for Sustainable Development**

## **Sowing the Seeds of Change—Military**

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Team/Group Award to:

DoD, Naval Facilities Engineering Service Center, Port Hueneme, CA

Lawrence Hill, Robert Fredrickson, Gary Gasperino, Ms. Doenee Moscato

**Joint Service Pollution Prevention Technical Library**

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## **Waste Prevention Hazardous Waste—Military**

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Team/Group Award to:

DoD, Marine Corps Base, Camp Lejeune's Environmental Compliance Division, NC  
Sam Gwynn, Robert Warren, Doug Pine

### **Camp Lejeune's Waste Prevention Achievements**

Team/Group Award to:

U.S. Army, United States Military Academy, West Point Environmental Division, NY  
Joseph Shandling, Franklin Mills

### **U.S. Military Academy: "Stewards of the Castle"**

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## **Waste Prevention Hazardous Waste—Civilian**

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Individual Award to:

U. S. Department of Energy, DOE-HQ Office of Pollution Prevention, Germantown, MD  
Dr. J. Kent Hancock,

### **Visionary Leadership for the DOE Pollution Prevention Program**

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## **Waste Prevention Non-Hazardous Waste—Civilian**

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Team/Group Award to:

Danville Recycling Team, VA Medical Center, Danville, Illinois  
Patricia Edington, Sharon Williams, Diane Allison, and Trina Hyatt

### **Meeting the Challenge for the New Millennium**

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## **Recycling Non-Hazardous Waste—Civilian**

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Team/Group Award to:

Department of Justice, Federal Prison Industries, Federal Correctional  
Institution, Marianna and Elkton Computer Demanufacturing/Recycling  
Joe McNeal, Diane Anthony, and Aaron Aragon

### **UNICOR Computer Demanufacturing/Recycling**

Individual Award to:

Department of the Interior, Yosemite Lodge Deconstruction, Yosemite National Park

Mr. Kim Slininger,

**Management of Deconstruction and Salvaging of Flooded Buildings**

Team/Group Award to:

U.S. Postal Service and Macomb County, MI

Daniel Borninski, Robert Gray, Patrick Collins, and Robert MacDonald

**U.S. Postal Service/Macomb County,MI Battery Recycling Program**

## **Recycling Non-Hazardous Waste-Military**

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Team/Group Award to:

Department of Defense, III Corps, Fort Hood Recycling Program, TX

Colonel Georgia Turner, Ms. Jaycee Turnquist, Laura Duncan

**Recycling at Fort Hood**

Individual Award to:

DoD, 11th Civil Engineer Squadron, Bolling Air Force Base, Washington, DC

Ms. Helen V. Walker,

**“Think Globally, Act Locally; Let’s Kick Some Trash”**

## **Recycling Hazardous Waste-Civilian**

---

Individual Award to:

United States Coast Guard, USCG Headquarters, Washington, DC

LT. Joyce Eileen Aivalotis,

**Advancement of Environmental Stewardship in Coast Guard Naval Engineering**

## **Recycling Hazardous Waste-Military**

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Individual Award to:

DoD, Administrative Support Unit SWA, Manama, Bahrain

Mr. Awni M. Almasri,

**Used Oil Recycling and Wash and Reuse of Dirty Shop Towels**

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## **Affirmative Procurement-Civilian**

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Team/Group Award to:

U.S. Department of Energy, Richland Operations Office-Hanford Site, Richland, WA

Anna Beard, Janice Williams, Donna Merry

### **Affirmative Procurement Strategy**

Individual Award to:

U.S. Department of Agriculture, Headquarters Procurement Policy Office, Washington, DC

J. R. Holcombe Jr,

### **Opening New Doors to Biobased Products**

Individual Award to:

U.S. Department of Energy, DOE Headquarters, EM-77, Office of Pollution Prevention, Germantown, MD

Susan C. Weber,

### **Affirmative Procurement in the Department of Energy**

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## **Affirmative Procurement-Military**

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Team/Group Award to:

Defense Logistics Agency, Defense Automated Printing Service, Fort Belvoir, VA

Lieutenant General Henry Glisson, Dr. Marshall Bailey, III

### **DAPS Revamps Affirmative Procurement for 20% Recycled Paper**

Team/Group Award to:

Department of Defense, U.S. Army Tank-Automotive and Armaments Command, Warren, MI

Agnes Holley, Dan Cottone, Brian McCutcheon, Bill Vantrease

### **Team Tire Retread Program**

## **Environmental Preferability-Civilian**

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Team/Group Award to:

U.S. Department of Transportation, Federal Aviation Administration William J. Hughes,  
Atlantic City International Airport, New Jersey

Armando Gaetano, James White

**Alternative Method for Aircraft De-Icing**

## **Environmental Preferability-Military**

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Team/Group Award to:

U.S. Department of Defense, Navy Public Works Center, Pearl Harbor, HI

Commander David Mathias and Mr. Ralph Wakumoto

**PWC Pearl P2 Process Improvements**

Team/Group Award to:

U.S. Department of Defense, Environmental Management, McClellan AFB, CA

Philip H. Mook,

**Alternative Fueled Vehicle Program**

## **E. O. 12856 Individual Challenge**

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Individual Award to:

U.S. Army Department of Defense, Fort Campbell, Kentucky

Jerry W. Merryman,

**Outstanding Leadership in Implementing Executive Order 12856  
at Fort Campbell, KY**



# 1998-1995 White House Closing the Circle Award Winners

## Model Facility Demonstration

- 1998:** DOT and US Coast Guard Integrated Support Command, Honolulu, HI  
**Hazardous Waste Pollution Prevention**  
 DoD, U.S. Army Ordnance Center and School, Aberdeen Proving Ground, MD  
**Pollution Prevention and Affirmative Procurement Program**  
 DoD, Marine Corps Recruit Depot, Parris Island, SC  
**Parris Island: Where the Difference Begins**
- 1997:** DOT/USCG USCG Air Station Cape Cod, MA  
**Cultural Change Reduces Waste, Increases Recycling & Protects Natural Resources**  
 USPS, San Diego District  
**Waste Reduction and Recycling**
- 1996: Group Awards:**  
 DoD Naval Amphibious Base Little Creek, Norfolk, VA  
 Willie Barnes, Jeff McAdoo, Terri Mostelle, Martin Costello  
**Waste Reduction Program**  
 TVA: Knoxville, TN; Muscle Shoals, AL; Chattanooga, TN  
 Gary Collins, Warren Behlau, Darlene Pierce, David Zimmerman, David Smith  
**Facilities Services Environmental Program**
- Facility:**  
 DOE, Amarillo, TX  
**Pantex Plant Model Facility**

**1995: Group:**

United States Coast Guard Support Center, Governor's Island, NY  
Captain James D. Garrison, Chief Warrant Officer Frank E. Libby  
Chief Warrant Officer William White, Storekeeper First Class William Thomas,  
Yeoman Third Class W. Troy Sampson

**Source Reduction Through Green Product Substitutions**

**Facility:**

USPS, Vehicle Maintenance Facility, Hartford, CT

**Environmental Compliance Model Vehicle Maintenance Facility Project**

## **Sowing the Seeds of Change**

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**Facility Awards:**

**1998:** DoD, Air Force Center for Environmental Excellence, Brooks AFB, TX.

**The TXP3: The Nation's Model P2 Partnering Venture**

**1997:** DoD, Ogden Air Logistics Ctr., Environmental Mgt. Directorate, Hill AFB, UT.

**Waste Prevention at Hill AFB**

DOE Office of Pollution Prevention, EM-77, Washington, DC

**Pollution Prevention in DOE Headquarters Operations**

DoD, HQ ACC Civil Engineering, Langley AFB, VA

**Air Combat Command Global Environmental Outreach**

USPS, Headquarters, Washington, DC

**Closed Loop Lobby Recycling Container**

USPS, All Ohio Postal Service Facilities

**Recycling Used Fluorescent Lamps**

**1996:** DoD, Defense Logistics Agency Defense Supply Center Richmond, VA

Brenda T. Longest, Stephen J. Perez, Clifford A. Myers, Susanne Smith

**Environmental Products (EP) Catalog**

EPA/USPS

**Environmental/Recycling Hotline**

GSA/EPA Region 4

Ms. Sandy Jones, J. C. Meredith

**Buy Recycled Partnership Campaign**

**Individual Awards:**

1998: DOE, Office of Energy Research, Germantown, MD

Arnold M. Edelman

**Achieving DOE Complex-wide Materials Exchange through Development of the DOE Complex-Wide Materials Exchange Web Site**

1997: DOE, Office of Defense Programs, Office of the ADAS for Tech. and Env'l Support, Germantown, MD.

John Marchetti

**The Pollution Prevention Advisor (newsletter)**

## **Recycling**

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1998: USPS, Greater Lansing Area Processing and Distribution Center, MI

**Closed Loop Recycling Program at Lansing, MI P&DC**

DoD, Tobyhanna Army Depot, Pennsylvania

**Recycling Program at Tobyhanna Army Depot**

HAZMAT: DoD, Wright-Patterson Air Force Base, Ohio

**USAF Radioactive Material Recovery and Recycling Program**

1997: GSA Heartland Region, PBS, 6PMF, Kansas City MO

**Heartland Region Recycling: Building on Success**

DoD, Naval Air Station, Whidbey Island

**Closed Loop Recycling**

DoD, 375th Civil Eng Squadron/Environmental Flight, Scott AFB

**Team Scott AFB Recycling Program**

DoD, Naval Base, Pearl Harbor, HI

**Recycling Center Operations & Direct Sales of Recyclable Materials**

**1996: Individual Awards:**

USPS, All Facilities

Charles Vidich, Chair,

**National Task Force on Undelivered Bulk Business Mail**

USPS, Merrifield, VA

Bill Christenson,

**Recycling Operations at the Postal Service Northern Virginia Vehicle Maintenance Facility, Merrifield, VA**

**Group Awards:**

DoD, Marine Corps Recruit Depot, Parris Is, SC

Timothy J. Harrington, Steven Chisholm, Thomas B. Woods

**Parris Island-Where the Difference Begins**

Veterans Administration, Denver, CO

Arnold L. Schultz, PhD, Noella B. Pregill, Kenneth Wederski, Robert G. Gibson,  
Susan L. Lucht

**Recycling at the Denver DVA Medical Center**

**Facility Awards:**

DoD, All Texas Air National Guard Facilities

**Adjutant General's Department Pollution Prevention Program**

DoD, U.S. Air Force

**Team Grand Forks Recycling Program Grand Forks AFB, ND**

**1995: Individual:**

DoD, Whiteman Air Force Base, MO

Scott J. Ammon

**Resource Recovery and Recycling Program**

Aransas National Wildlife Refuge Complex, TX

Brent Giezentanner

### **Recycling at Aransas National Wildlife Refuge**

Blue River Ranger Station, OR

Chip Britting

### **Total Recycling at Blue River Ranger Station**

#### **Group:**

DoD, Recycling Center, Fort Sill, OK

William S. Barwick, Thomas H. Tompson, Richard F. Null, James L. Murphy,  
James E. Mallow

### **Partnership Recycling at Fort Sill**

DoD, Marine Corps Air Station, Cherry Point, NC

Don Perry, Dave Cooke, Ann Coppage

### **Recycling and Pollution Prevention**

#### **Facility:**

HUD Building Operations Division, Washington, DC

### **Paper, Aluminum Cans, and Glass Recycling at HUD HQ**

DoD, Lake City Army Ammunition Plant, Independence, MO

### **Lake City Army Ammunition Plant Recycling**

## **Waste Prevention**

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1998: DoD, McClellan Air Force Base, California

### **McClellan Air Force Base Pollution Prevention Efforts**

1997: DoD, Marine Corps Recruit Depot, Parris Island, SC

### **Parris Island - Legacies Handed Down Forever**

DoD, Naval Air Station, Lemoore, CA

### **Pollution Prevention Program at NAS Lemoore**



**1996: Individual:**

DoD, Army Ordnance Center and School, Aberdeen Proving Grounds, MD

Keith T. Katz,

**Pollution Prevention Program**

**Group:**

USPS, Northeast Area Distribution Facilities at 28 Sites

**Waste Minimization/Pollution Prevention Program**

**1995: Group:**

USPS Vehicle Maintenance Facilities

(five facilities were combined by the judges into one group):

New Orleans, LA (1300 Florida Avenue); Anchorage, AK; Houston, TX; Edison, NJ  
and 25 USPS Vehicle Maintenance Facility sites in CT, RI, NY,,MA, ME, NH.

**VMF Waste Reduction Program**

**Facility:**

NASA, Kennedy Space Center, FL

**Hazardous Waste Minimization at Kennedy Space Center**

DOE, Oak Ridge Y-12 Site, TN

**Cooling Tower Ozone Generation at Y-12 and Y-12 CFC and Halon Replacement Program**

## **Affirmative Procurement**

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**Facility Awards:**

**1998:** DoD, Naval Station San Diego, CA

**Affirmative Procurement Action at Naval Station San Diego**

**1997:** DOT /USCG, US Coast Guard Yard, Baltimore MD

**Designing a Hazardous Materials Management System**

DoD/DLA, Defense Supply Center Richmond, VA

**Marketing of Re-Refined Oil**

**1996:** USPS, Purchasing & Materials Service Center, Dallas, TX

**Purchasing Strategies**

**Group:**

DoD, McChord AFB Tacoma, WA

Mark A. Gable, Alice Hammontree, CAPT Wade Hader, Johnnie Shinn

TSgt. David Schumann

**Affirmative Procurement Program**

USPS, Headquarters Washington, DC

John Portell, David Sherer, Pete Steele, Frederick J. Hintenach, Bernie Denno

**Affirmative Procurement Program, Paper and Paper Products**

**Individual:**

**1998:** USPS, Purchasing Office, Windsor, CT

Pete L. Dolder

**Boise Cascade Contract & Environmental Purchasing Task Force**

**1996:** DOT/USCG Support Center Governor's Island, NY

CWO Frank E. Libby,

**Green Buying Power: USCG Support Center Increases Market for Recycled Products**

**1995:** National Naval Medical Center, Bethesda, MD

Beth Law

**Closing the Loop at NNMC**

**Group:**

Environmental Protection Agency /GSA Region 5 - MN, WI, IL, IN, MI, OH  
Paul Ruesch (EPA), Paula Ure (GSA)

**Region Five Affirmative Procurement Outreach Program**

**Facility:**

USPS HQ, Washington, DC

**Closed-Loop Used Oil Recycling in the USPS**

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## **Environmental Innovation**

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**Individual:**

**1998:** DoD, Naval Construction Battalion Center, Port Hueneme, CA

Ms. Gail Pringle

**Environmental Innovation**

USPS, Dallas, TX

William H. Hayen

**Converting Undeliverable Mail to Compost**

**1996:** USPS, Bulk Mail Center, St. Louis, MO

Kenneth P. Philipak

**Maintenance Free Forklift Batteries**

**1995:** DoD, Washington Army National Guard, Tacoma, WA

Captain Gordon Matthews

**Solvent Reduction Program**

**Facility:**

**1998:** EPA, Urban and Economic Development Division, Washington, DC and HUD Office, Multifamily Housing Division, Baltimore, MD

**Deconstruction of Riverdale: Construction Materials Reuse**

DoD, Defense Intelligence Agency Services Group, Washington DC

**Waste Not; Want Not**

**1997:** GSA/EPA Federal Building 290 Broadway, NY, NY 10007

**Green Clean**

TVA Facilities Services, Environmental & Safety Services

**Sustainable Architecture**

**1996:** DoD/DLA Defense Distribution Depot, Susquehanna, PA Special Ops, Logistics Division, Wood Reclamation Center

**100% Closed Loop wood/Fiberboard Recycling**

DOE, Savannah River Site, Aiken, SC

**Savannah River Site**

**1995:** DOE, Savannah River Site, Aiken, SC

**White Office Paper Usage Reduction****Group Awards:**

**1997:** DoD, Space and Missile Systems, Wright-Patterson AFB, OH

**Environmentally Improved Space Launch Rocket Systems**

EPA Office of Solid Waste, Crystal Station. VA.

**Innovative Applications of Compost**

DoD/DLA, Defense Supply Ctr, Richmond, VA

**Ozone Depleting Substances Reserve at Defense Supply Center**

- 1996:** DoD, ANG MATES, Camp Grayling, MI.  
Keith Bobenmoyer, CW4 James Failing, SSgt David McLain  
**Environmental Innovation for Future Generations at Camp Grayling MATESLTC**
- 1995:** DoD, Army National Guard, Arlington VA  
Colonel Philip W. Spence, Colonel Marylin Muzny, Joseph Cassanova, and Janine Guadagno  
**ARNG Pollution Prevention Program**

## **Individual Challenge (E.O. 12856)**

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- |              |                                                                                                                                                                                                                                  |                                                                                                                                                                                             |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1998:</b> | DoD, Marine Corps Logistics Base, CA<br><b>Randall L. Spencer</b><br>USPS, Pacific area Unit,<br>San Francisco, CA<br><b>Patrick Langsjoen</b><br>DoD, U.S. Army Materiel Command,<br>Alexandria, VA<br><b>George H. Terrell</b> | <b>Ronald Robbins</b><br>USPS, Portland, ME<br><b>Russell P. Schaefer</b><br>DoD, CPO, US Coast Guard<br><b>Richard Peri</b><br>Dept. of Energy<br><b>Jane Powers</b><br>DoD, Fort Sill, OK |
| <b>1997:</b> | DoD, Naval Surface Warfare Center,<br>Carderock, MD<br><b>Mary Jo Bieberich</b><br>DoD, Naval Surface Warfare Center,<br>Cranne, IN<br><b>Cathy Andrews</b><br>USPS, Northeast Area Office,<br>Windsor, CT                       | <b>Ronald Barrett</b><br>USDA, Agricultural Research Center,<br>Beltsville, MD<br><b>Arthur Benson</b><br>DoD, Corpus Christ Army Depot, TX<br><b>Edward Cooper</b>                         |

## **Lifetime Achievement**

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- |              |                                             |              |                                                                    |
|--------------|---------------------------------------------|--------------|--------------------------------------------------------------------|
| <b>1997:</b> | U.S. Postal Service<br><b>Charlie Bravo</b> | <b>1995:</b> | General Services Administration<br><b>John L. Stanberry, Ph.D.</b> |
|--------------|---------------------------------------------|--------------|--------------------------------------------------------------------|