UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

U.S. Nuclear Regulatory Commission (NRC)
Affirmative Procurement Program

Green Purchasing Plan (GPP)

Contains Federal Requirements and Guidance for
Purchasing Green Products and Services at the NRC

Issued by

Division of Contracts
Office of Administration

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FOREWORD

I am pleased to present the U.S. Nuclear Regulatory Commission's (NRC's) Green Purchasing Plan (GPP). This GPP serves as the framework of the agency's efforts to buy goods and services that are safe and healthy for the public and the environment.

To properly and fully execute this GPP, it is imperative that employees be familiar with its contents and requirements, understand its relationship to their jobs and roles, be able to identify and evaluate the green contents and aspects of products and services, track performance, and inform contractors about their environmental responsibilities under the terms and conditions of their Federal awards.

It is the policy of the NRC to comply with Federal laws, Executive Orders (EOs), Federal agency regulations, and other policies and procedures when purchasing products and services, to the maximum extent practicable. This GPP applies to: a) all purchases of products and services where environmental requirements are applicable, b) procurements of any dollar value, including purchase card transactions, c) NRC contractors with Federal awards, and d) Federal funds to State and local governments, including block grants. While many of the requirements referenced in this GPP are specifically geared towards contracts and contractors, the NRC nonetheless encourages grantees and recipients of Federal funds to strategically incorporate sustainable environmental practices into their normal business operations to promote and enhance Federal programs and projects. Green purchasing requirements may be included in grant awards, as appropriate, either integrated into program descriptions or as special grant provisions in which grant outcomes or results affect public health or the environment.

The NRC, through good environmental stewardship, helps to protect the health and safety of the public and the environment through responsible and sound business decisions to conserve valuable resources and adhere to Federal requirements. **"Environmental stewardship"** is a term used to describe responsibility for environmental quality shared by those whose attitudes, decisions, and actions affect the environment. Good stewardship can help create a more sustainable future for public health and the environment. The *Environmental Stewardship Resource Guide* is a reference tool developed by the U.S. Environmental Protection Agency designed to help Federal employees make more informed business decisions and adopt practices that benefit the environment. Making environmental stewardship a choice in one's everyday life helps preserve the environment, meets Federal requirements, and promotes good public health.

Each NRC employee in effect serves as an environmental steward in some capacity, whether at work or in the community. The actions of NRC employees contribute to overall health of employees and of the general public, while influencing the overall quality of the environment. Through participation in various conservation efforts and adherence to Federal environmental purchasing requirements, NRC employees can make valuable contributions to improve the safety and wellbeing of the public and the environment through awareness and thoughtful buying decisions.

Cynthia Carpenter, Director
Office of Administration (ADM)

EXECUTIVE SUMMARY

The U.S. Nuclear Regulatory Commission's (NRC's) Green Purchasing Plan (GPP) has been developed to ensure that green products and services will be procured to the maximum extent practicable and fulfill the applicable affirmative procurement requirements of Executive Order (EO) 13423," Strengthening Federal Environmental, Energy, and Transportation Management," Executive Order (EO) 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," Section 6002 of the Resource Conservation and Recovery Act of 1976, Section 104 of the Energy Policy Act of 2005, Section 9002 of the Farm Security and Rural Investment Act of 2002, Section 612 of the Clean Air Act, Federal Acquisition Regulation Part 23, and direction from the White House Council on Environmental Quality, Office of the Federal Environmental Executive.

This GPP provides guidelines and suggestions for purchasing: (i) U.S. Environmental Protection Agency (EPA)-designated recycled content products (i.e., EPA's "Comprehensive Procurement Guidelines"), (ii) Electronic Product Environmental Assessment Tool registered products), (iii) EnergyStar® and Federal Energy Management Program-designated efficient products and appliances, (iv) biobased products designated by the U.S. Department of Agriculture (USDA) (i.e., USDA Biopreferred® program), (v) environmentally preferable products, (vi) WaterSense and other water-efficient products, (vii) products containing non- or lower-ozone-depleting substances – Significant New Alternatives Policy, and (viii) products containing non- or low-toxic or hazardous constituents (e.g., non-volatile organic compounds paint).

An integral part of the successful implementation of the NRC's GPP centers on a sustained commitment on the part of program offices, contracting officers' representatives (COR), contract specialists, and contracting officers to ensure that green requirements *(including percentage requirements for recycled content and biobased material)* are included in statements of work (SOW), solicitation instructions, and evaluation criteria, as appropriate. The degree to which agency procurements contain green attributes or requirements should closely resemble and correspond with the weight afforded them during agency proposal evaluations. Where NRC procurements contain few green requirements, environmental attributes may be integrated with larger technical evaluation criteria and play a lesser role in award decisions. Conversely, requirements for construction, landscaping, or janitorial services, for instance, or purchases of designated products or items listed by USDA or EPA—which tend to have a greater impact on public health and the environment—would be expected to have greater emphasis in agency solicitations and evaluations. The solicitation's SOW, green product requirements, instructions, provisions, criteria, and contract clauses are used by the NRC to effectively convey to vendors the importance of buying safe environmental products and services. As part of contract administration responsibilities, the COR generally is responsible for inspecting contract deliverables and services to ensure that they conform with green product and service requirements specified in the contract or order before accepting them.

Please review The *Environmental Stewardship Resource Guide* for a brief overview of general and specific roles by Federal employees and good environmental stewardship practices.

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The NRC's Three White Flint North Building is Leadership in Energy and Environmental Design Certified

Energy-Efficient Light Project
The NRC's One White Flint North Building

The new, two tube fixture is a modern, energy-efficient fixture that uses a more enhanced indirect lighting system.

Reduce, Reuse, Recycle

Through early and frequent communication, particularly between Contracting Officers' Representatives and Contracting Officers during the procurement purchasing process, the NRC can effectively balance agency mission needs with Federal green purchasing requirements and goals.

APPENDICES

I. PURPOSE, AUTHORITY, AND APPLICABILITY

A. Purpose

The U.S. Nuclear Regulatory Commission's (NRC's) Green Purchasing Plan (GPP) provides guidance to ensure the agency complies with the following regulations:

- Executive Order (EO) 13423, "Strengthening Federal Environmental, Energy, and Transportation Management" signed January 26, 2007.
- EO 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," signed October 5, 2009
- Section 6002 of the Resources Conservation and Recovery Act (RCRA) of 1976, (42 U.S.C. 6962)
- Section 104 of the Energy Policy Act (EPAct) of 2005 - Procurement of Energy Efficient Products
- Section 9002, "Federal Procurement of Biobased Products," of the Farm Security and Rural Investment Act (FSRIA) of 2002 (7 U.S.C. 8102)
- Section 612 of the Clean Air Act (CAA)
- Federal Acquisition Regulation (FAR) Part 23
- White House Council on Environmental Quality (CEQ), Office of the Federal Environmental Executive (OFEE) memoranda
- other Federal laws and regulations.

The goal of the NRC's GPP is to facilitate purchases that benefit human health and the environment while reducing the agency's carbon footprint and reliance on any products or services that are less friendly to the environment. By including environmental considerations, standards, or evaluation criteria into the agency's buying decisions, along with price, quality, performance, and availability, the NRC will be promoting good environmental practices that are responsible and that serve to benefit public health and safety, prevent and reduce pollution, conserve natural resources, create efficiencies, and support vendors that produce, sell, or promote environmentally friendly supplies, products, and services.

This GPP encompasses the purchasing of : (i) products designated as having recycled content by the U.S. Environmental Protection Agency (EPA), (ii) products registered by the Electronic Product Environmental Assessment Tool (EPEAT®), (iii) products and appliances designated as efficient by EnergyStar® and Federal Energy Management Program (FEMP), (iv) biobased products designated by the U.S. Department of Agriculture (USDA) (USDA Biopreferred® program), (v) environmentally preferable products, (vi) WaterSense and other water-efficient products, (vii) products containing non- or lower-ozone-depleting substances (non-ODS) - Significant New Alternative Policy (SNAP), and (viii) products containing non- or low--toxic or hazardous constituents (e.g., non- volatile organic compound (VOC) paint).

B. Authority

This GPP serves as the NRC's broad acquisition guidance for green purchasing pursuant to the laws, statutes, and regulations set forth below.

❖ **Section 9002 of the Food, Conservation, and Energy Act of 2008**

- Section 9002, "Biobased Markets Program," of the Act requires each Federal procuring agency to establish a procurement program, develop procurement specifications, and procure biobased products identified under the guidelines described therein.

- The Act requires that Federal agencies give a procurement preference to those items that are composed of the highest percentage of biobased products practicable, or to comply with the regulations issued under Section 103 of Public Law 100 – 556 (42 USC 6914b–1).

Hyperlinks:
- Food, Conservation, and Energy Act of 2008
- Section 9002 ("Biobased Markets Program")

❖ **Section 943 of the Energy Policy Act of 2005 (Pub. L. 109–58)**

- Section 943, "Procurement of Biobased Products," of the EPAct established:

  – requirements for Federal agencies to use of energy efficiency products, including EnergyStar®- and FEMP-designated products

  – requirements of the use of renewable energy, including biobased products

Hyperlinks:
- EPAct of 2005
- Section 943 ("Procurement of Biobased Products")

❖ **Section 9002 of the Farm Security and Rural Investment Act of 2002 (7 USC 8102)**

- Section 9002 of the Farm Security and Rural Investment Act (FSRIA), "Federal Procurement of Biobased Products," requires each Federal agency to comply with the requirements of Section 9002 with respect to any purchase or acquisition of a procurement item in which the purchase price of the USDA-designated item exceeds $10,000 or when 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.

  Each Federal agency that procures any items designated gives preference to such items composed of the highest percentage of biobased products practicable, consistent with maintaining a satisfactory

level of competition, considering such guidelines. An agency may decide not to procure such items if the agency determines that the items:

- are not reasonably available within a reasonable period of time
- fail to meet the performance standards set forth in the applicable specifications or fail to meet the reasonable performance standards of the procuring agencies
- are available only at an unreasonable price

- Note: The dollar threshold above applies to the cumulative purchases at NRC Headquarters and the agency's regions.

Hyperlinks:
- FSRIA of 2002
- Section 9002 ("Federal Procurement of Biobased Products")

Biomass Research and Development Act of 2000

The Act:

- Defines terms such as biobased product and biomass:
  - Biobased product – An industrial product (including chemicals, materials, and polymers) produced from biomass, or a commercial or industrial product (including animal feed and electric power) derived in connection with the conversion of biomass to fuel.
  - Biomass – Any organic matter that is available on a renewable or recurring basis, including agricultural crops and trees, wood and wood waste and residues, plants (including aquatic plants), grasses, residues, fibers, and animal wastes, municipal wastes, and other waste materials.
- Established a Biomass Research Development Board.
- Established reporting requirements.

Hyperlink:
- Biomass Research and Development Act of 2000

❖ **Section 6002 of the Resource Conservation and Recovery Act (RCRA) (42 USC 6962), as amended**

- Section 6002 of RCRA requires procuring agencies to implement an affirmative procurement plan consisting of four elements:
  - a recovered materials preference program
  - a promotion program

- procedures for estimation, certification, and verification
- procedures for annual review and monitoring of the effectiveness of the procurement program

- RCRA requires all "procuring agencies" to purchase items designated in the *Comprehensive Procurement Guidelines* (CPG) when buying $10,000 worth of an item. Procuring agencies include State and local government recipients of Federal funding.

  Applicable to:

  - All Federal agencies, which as procuring agencies are subject to Section 6002, whether using appropriated funds or not, while purchasing designated items.
  - Any State agency or local government using appropriated funds for procurement of designated items (including block grants).
  - State and local institutions of higher education, hospitals, and nonprofit organizations that receive direct Federal funds, which should give preference to the purchase of recycled products.

  Not applicable to:

  - Private recipients of Federal funds (e.g., nonprofit organizations or individual recipients of Farm Home Administration loans or other Federal loans, grants, or funds under a cooperative agreement). These are not considered procuring agencies and, therefore, are not subject to RCRA Section 6002.

Hyperlinks:
- Section 6002 of the RCRA
- RCRA (full text version)

Section 612 of the Clean Air Act (CAA)

- The CAA is incorporated into 42 USC 85.

- Established law aimed at reducing or eliminating air pollution that endangers public health and welfare, including injury to agricultural crops and livestock, damage to and the deterioration of property, and hazards to air and ground transportation. This includes the reduction of emissions of VOCs affecting low-level ozone.

Hyperlink:
- EPA CAA Web site

❖ **EO 13423, "Strengthening Federal Environmental, Energy, and Transportation Management," signed January 26, 2007**

EO 13423:

- Requires Federal agencies to: (a) implement within the agency sustainable practices for: (i) energy efficiency, greenhouse gas emissions avoidance or reduction, and reduction in the use of petroleum products, (ii) renewable energy, including bioenergy, (iii) water conservation, (iv) acquisition, (v) pollution and waste prevention and recycling, (vi) reduction or elimination of acquisition and use of toxic or hazardous chemicals, (vii) high performance construction, lease, operation, and maintenance of buildings, (viii) vehicle fleet management, and (ix) electronic equipment management.

- Sets goals for Federal agencies in the areas of environment, energy, and transportation management.

- Revoked EOs, including: 13101, 13123, 13134, 13148, and 13149.

Hyperlinks:
- EO 13423
- FedCenter.gov

❖ **EO 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," signed October 5, 2009**

EO 13514:

- Requires Federal agencies to increase energy efficiency; measure, report, and reduce their greenhouse gas emissions from direct and indirect activities; conserve and protect water resources through efficiency, reuse, and stormwater management; eliminate waste, recycle, and prevent pollution; leverage agency acquisitions to foster markets for sustainable technologies and environmentally preferable materials, products, and services; design, construct, maintain, and operate high performance sustainable buildings in sustainable locations; strengthen the vitality and livability of the communities in which Federal facilities are located; and inform Federal employees about and involve them in the achievement of these goals. These Federal efforts will serve to minimize waste, prevent pollution, save energy and other resources, reduce greenhouse gas emissions, and encourage vendors in the private sector to participate in green purchasing programs through the performance of Government contracts and other mechanisms.

- Established goals for Federal agencies in the area of environment, energy, and transportation management.

Hyperlinks:
- EO 13514
- FedCenter.gov

❖ **EPA's CPG Program**

- The CPG program is part of EPA's continuing effort to promote the use of materials recovered from solid waste to be used repeatedly in the manufacture of new recycled-content products.

Hyperlink:
- EPA CPG Web site

❖ **Office of Federal Procurement Policy (OFPP), Policy Letter 92-4**

- OFPP Policy Letter 92-4 provided Federal agencies policies for the acquisition and use of environmentally sound, energy-efficient products and services.

Hyperlink:
- OFPP policy letters

❖ **FAR Part 23 (Title 48 of the *Code of Federal Regulations*)**

- FAR Part 23 includes acquisition policies and procedures that support the Government's program for protecting and improving the quality of the environment; fostering markets for sustainable technologies, materials, products, and services, and encouraging the safe operation of vehicles by:
  - Reducing or preventing pollution.
  - Managing efficiently and reducing energy and water use in government facilities.
  - Using renewable energy and renewable energy technologies.
  - Acquiring energy-efficient and water-efficient products and services, environmentally preferable (including those registered through EPEAT® and non- or low-toxic) products, products containing recovered materials, non-ozone-depleting products, and biobased products.
  - Requiring contractors to identify hazardous materials.
  - Encouraging contractors to adopt and enforce policies that ban text messaging while driving.
  - Requiring contractors to comply with agency environmental management systems.

Hyperlinks:
- FAR Part 23
- FedCenter.gov

C. Applicability

This GPP applies to: a) all purchases of products and services in which environmental requirements are applicable, including USDA- and EPA-designated products and items; b) procurements of any dollar value, including purchase card transactions, c) NRC contractors with Federal awards, and d) Federal funds to State and local governments, including block grants.

While many of the requirements referenced in this GPP are geared specifically towards contracts and contractors, the NRC nonetheless encourages grantees and recipients of Federal funds to incorporate strategically sustainable environmental practices into their normal business operations to promote and enhance Federal programs and projects. Also, green requirements may be included in grant awards, as appropriate, either integrated into program descriptions or as special grant provisions where grant outcomes or results affect public health or the environment.

While this guidance applies to all NRC contractors, this GPP only applies to contractors where clauses or provisions are included in the contracts. It is the responsibility of the NRC contracting officers to ensure that new and existing contracts include GPP compliance clauses or provisions.

II. FEDERAL ENVIRONMENTAL PROGRAMS

In 1997, the Federal Government adopted a rule that amended the FAR to reflect clearly the Government's preference for the acquisition of environmentally sound and energy-efficient products and services and to establish an affirmative procurement program favoring items containing the maximum practicable content of recovered materials. The rule also implemented policies for procurement of items for which the EPA has designated minimum recovered material content. Since that time, a number of new laws have been enacted and new regulations established to bolster the Government's ability to reduce harmful pollutants entering the environmental footprint and to conserve resources.

Sections A though I below include major environmental programs that apply to any purchases made by the Federal Government. These include materials, supplies, products, and services. Each major program listed is further discussed in detail below.

A. EPA-Designated Recycled Content Products

B. EnergyStar®, Federal Energy Management Program (FEMP)-Designated Energy-Efficient Products and Appliances, and Low Standby Power

C. USDA Biobased Products

D. Environmentally Preferable Products (EPP) and Services

E. Electronic Product Environmental Assessment Tool (EPEAT®)-Registered Products

F. WaterSense or Other Water Efficient Products

G. Products Containing Non- or Lower-Ozone-Depleting Substances - Significant New Alternatives Policy (SNAP)

H. Products Containing Non- or Low-Toxic or Hazardous Constituents

I. Alternative Fuel Vehicles and Alternative Fuels

A. EPA-Designated Recycled Content Products

Sponsoring Federal Agency: EPA

Description:

Recycled content products are products made from or containing recovered materials. This involves replacing virgin materials with recycled materials, including post-consumer materials.

Laws, Regulations, or Policies:

Section 6002 of the Resource Conservation and Recovery Act (RCRA) requires Federal agencies to procure EPA-designated products composed of the highest percentage of recovered materials practicable consistent with maintaining a satisfactory level of competition. EO 13423 and the White House CEQ's *Implementing Instructions* require that each agency give preference to the purchase of recycled content products designated in EPA's CPG.

In 2008, the Government amended FAR to clarify language on the use of products containing recovered materials, pursuant to the Resource Conservation and Recovery Act of 1976 and EO 13101 (since revoked by EO 13423) (FAR Case 2005-039, "Use of Products Containing Recovered Materials in Service and Construction Contracts").

FAR 23.404(b)(1) states that each agency's Affirmative Procurement Program (APP) must require that 100 percent of purchases of EPA- and USDAdesignated products and items contain recovered material or biobased content.

Discussion:

The contract should specify—

- For products containing recovered materials, that the product is composed of the—

  (i) Highest percent of recovered materials practicable, or

  (ii) Minimum material content standards in accordance with EPA's recovered materials advisory notices (RMANs). Contract officers also may select from any of the eight major CPG product categories listed below for minimum standards (to be used in solicitations and contracts).

- A program for requiring reasonable estimates, certification, and verification of recovered material used in the performance of contracts. **The recovered material content program requires pre-award certification that the products**

meet EPA recommendations. A second certification is required at contract completion for recovered material content; as is annual review and monitoring of the effectiveness of the program.

EPA has grouped designated CPG products into eight (8) major categories, as follows:

- construction products
- landscaping products
- nonpaper office products
- paper and paper products
- park and recreation products
- transportation products
- vehicular products
- miscellaneous products

CPG Resources:

- The CPG program is part of EPA's continuing effort to promote the use of materials recovered from solid waste. Buying recycled-content products ensures that the materials collected in recycling programs will be used again in the manufacture of new products. The Web site describes the CPG program at a high level, and includes a Glossary and Frequent Questions file about the program and about CPG and RMANs.

- RMANs –Provide purchasing guidance and recommend recovered and postconsumer material content levels for designated items.

- Background –Provides regulatory information about the CPG and RMAN process, including the first five CPG and RMAN updates.

- Products –Details the eight CPG product categories, including all the specific products available, and provides eight overview product resource guides and a mechanism to suggest a product.

- Product Supplier Directory – Is an online, searchable database of available suppliers of products in the eight CPG categories.

The CPG program is authorized by Congress under Section 6002 of the Resource Conservation and Recovery Act and EO 13423. The EPA is required to designate products that are or can be made with recovered materials and to recommend practices for buying these products. Once a product is designated, procuring agencies are required to purchase it with the highest recovered material content level practicable.

Hyperlinks:
- EPA's CPG
- Office of Administration's (ADM's) Recycling Program

FEDERAL ACQUISITION REGULATION (FAR) CLAUSES OR PROVISIONS

FAR Part 23 requires agencies to purchase recycled content products.

- FAR 23.403 requires competitive cost-effective purchases of products that meet reasonable performance requirements and are composed of the highest percentage of recovered materials practicable.
- FAR 23.404 requires agencies to have an APP that provides guidelines for purchasing items with recycled content.
- FAR 23.405(b)(2) requires contracting officers to place a justification in the contract file when an acquisition of an EPA-designated product does not meet minimum recovered material content by EPA.
- FAR 23.406 requires the insertion of contract clauses about Recovered Material Certification (FAR 52.223-4), Estimate of Percentage of Recovered Material Content for EPA-Designated Products (FAR 52.223-9), and affirmative procurement of EPA-Designated Items in service and construction contracts (FAR 52.223-17).
- FAR 23.705 requires the insertion of the Waste Reduction Program clause (FAR 52.223-10) in all solicitations and contracts for contractor operation of government-owned or government-leased facilities, and for services at these locations.

FAR Parts 4, 10, 12, 13, and 36 also include recycled content item requirements, including:

- FAR Subpart 4.3, which requires contractors to submit acquisition-related paper documents to the government on printed or copied double-sided recycled paper, whenever practicable.
- FAR 10.001 and 10.002, which requires agencies to use the results of market research to ensure the maximum practicable use of recovered materials and promote energy conservation and efficiency.
- FAR 12.301, which allows contracting officers to use provisions and clauses about the use of recycled products, when appropriate.
- FAR 13.201, which requires purchases made at or below the micropurchase threshold to comply with the RCRA.
- FAR Subpart 36.6, which requires the statement of work for facility design contracts to use the maximum practicable amount of recycled materials.

FAR Part 52 includes the following applicable clauses and provisions:

- As prescribed in FAR 23.406(c), except for the acquisition of commercial off-the-shelf (COTS), insert the provision at FAR 52.223-4, “Recovered Material Certification, in solicitations that require the delivery of or specify the use of EPA-designated products.”

- As prescribed in FAR 23.406(e), insert the clause at FAR 52.223-17, “Affirmative Procurement of EPA-designated Items in Service and Construction Contracts, in service or construction solicitations and contracts unless the contract will not involve the use of EPA-designated products and items.”

- As prescribed in FAR 23.406(d), except for the acquisition of COTS, insert the clause at FAR 52.223-9, “Estimate of Percentage of Recovered Material Content for EPA-Designated Items, in solicitations and contracts over the simplified acquisition threshold that are for, or specify the use of, EPA-designated products and items containing recovered materials.”

B. EnergyStar®, Federal Energy Management Program (FEMP)-Designated Energy-Efficient Products and Appliances, and Low Standby Power

Sponsoring Federal Agencies: U.S. Department of Energy (DOE) and EPA

DOE manages the FEMP and Low Standby Power programs. The EPA and DOE jointly manage the EnergyStar® program.

- **EnergyStar®**

  Description:

  The EnergyStar® program helps Federal purchasers save money and protect the environment through the use of energy-efficient products and practices. In 1992, EPA introduced EnergyStar® as a voluntary labeling program designed to identify and promote energy-efficient products to reduce greenhouse gas emissions. The program initially labeled computers and monitors. Through 1995, EPA expanded the label to additional office equipment products and residential heating and cooling equipment. In 1996, EPA partnered with DOE for particular product categories. The EnergyStar® label is now on major appliances, office equipment, lighting, home electronics, and more. EPA also has extended the label to cover new homes and commercial and industrial buildings.

- **FEMP**

  Description:

  FEMP provides services, tools, and expertise to Federal agencies to help them achieve energy, greenhouse gas, and water goals. Federal agencies are required to procure energy-efficient products. FEMP produces energy efficiency requirements and resources to help Federal buyers comply with Federal requirements while saving energy and reducing costs.

- **Low Standby Power**

  Description:

  Some appliances or devices consume electricity when they appear to be turned off. This power consumption is known as standby power and occurs for a variety of reasons. In some cases, standby power allows a device to receive signals from a remote control, network, or soft key pad. In others, standby power is consumed because the power supply (the little black cube on some power cords) or some internal circuit remains connected when the device is turned off. FEMP defines standby power as the power consumed by a product when in the lowest power-consuming mode, which typically occurs when a product is switched to "off" or is not performing its primary purpose. Some organizations use standby power to refer to all low-power modes. FEMP does not consider standby power a mode, but rather an amount of power consumption that occurs when a device is in the lowest power-consuming mode.

  Laws, Regulations, or Policies:

  The Energy Independence and Security Act (EISA) and EO 13221 ("Energy Efficient Standby Devices") require Federal agencies to purchase products with a standby power level of 1 watt or less. For many product categories, the EnergyStar® program considers standby energy use. However, for the product categories listed below, Federal buyers must ensure that purchases meet both EnergyStar® and low standby power requirements. FEMP maintains a list of low standby power–compliant products in its Low Standby Power Data Center.

  Federal laws and EOs mandate that agencies meet these efficiency requirements in all procurement and acquisition actions that are not specifically exempted by law.

  The EPAct of 2005, Section 104, requires Federal agencies to purchase EnergyStar®-and FEMP-designated products when procuring energy-consuming products.

  EO 13423 and the CEQ's *Implementing Instructions* require that each agency give preference to the purchase of EnergyStar® and FEMP-designated energy-efficient products.

  In 2007, the FAR was amended to address implementation of Section 104 of the EPAct of 2005. This amendment requires all Federal acquisitions of energy-consuming products and all contracts for energy-consuming products requiring EnergyStar®- or FEMP-designated products. (FAR Case 2006-008, Implementation of Section 104 of the EPAct of 2005)

  The *Implementing Instructions* state that agencies shall purchase products that use no more than 1 watt of standby power. If FEMP has not specified a standby power level for a product category, agencies shall purchase products with the lowest standby power consumption available. In addition, EO 13221 mandates that each agency, when it purchases commercially available COTS products that use external standby power devices or contain an internal standby power

function, purchase products that use no more than 1 watt in standby power-consuming mode.

Discussion:

The resources provided by FEMP are geared towards helping Federal agencies achieve required energy, greenhouse gas, and water goals.

Each program area focuses on specific energy management actions to help Federal agencies deploy the available technologies appropriate for energy efficiency, renewable energy, and water conservation projects. FEMP program areas include:

- sustainable buildings and campuses
- operations and maintenance
- greenhouse gases
- water efficiency
- data center efficiency
- industrial facilities
- sustainable Federal fleets

References:

- Web site to find EnergyStar® products
- FEMP energy-efficient product categories
- Requirements and guidance for low standby power
- CEQ's *Implementing Instructions* for EO 13423

FEDERAL ACQUISITION REGULATION (FAR) CLAUSES OR PROVISIONS

FAR Subpart 23.2 requires agencies to purchase energy-efficient products in appropriate situations.

- FAR 23.203, "Energy-Efficient Products," states that when acquiring energy-consuming products: (i) agencies shall purchase EnergyStar®- or FEMP-designated products; and (ii) for products that consume power in a standby mode and are listed on FEMP's Standby Power Devices product listing, agencies shall purchase items that meet FEMP's standby power wattage recommendation or document the reason for not purchasing such items.

- FAR 23.204, procurement exemptions, states that the head of the agency may make an exception if he or she determines in writing that no EnergyStar®- or FEMP-designated product is reasonably available that meets the functional requirements of the agency, or no EnergyStar®- or FEMP-designated product is cost effective over the life of the product taking energy cost savings into account.

FAR Part 52 includes the following applicable clauses and provisions:

- As prescribed in FAR 23.206, insert the clause at FAR 52.223-15, "energy efficiency in energy-consuming products" (December 2007), in solicitations and contracts when purchasing energy-consuming products.

C. USDA Biobased Products

Sponsoring Federal Agency: USDA

Description:

The USDA is responsible for implementing the Biopreferred® program. The purpose of the Biopreferred® program is to promote the increased purchase and use of biobased products.

Biobased products are products determined by USDA to be commercial or industrial products (other than food or feed) that are composed in whole, or in significant part, of biological products or renewable domestic agricultural materials (including plant, animal, and marine materials) or forestry materials.

Laws, Regulations, or Policies:

The purchasing of biobased products is required by Section 9002 of FSRIA, and EO 13423. Section 9002 states that each Federal agency that procures any items designated in such guidelines shall, in making procurement decisions, give preference to such items composed of the highest percentage of biobased products practicable, consistent with maintaining a satisfactory level of competition. EO 13423 and CEQ's *Implementing Instructions* require that each agency give preference to the purchase of biobased products designated by the USDA's Biopreferred® program.

In 2007, the FAR was amended to require that a procurement preference be added to biobased products within items designated by the Secretary of Agriculture (USDA's Biobased Products Preference Program).

In 2008, USDA published three final rules in the *Federal Register* designating 27 biobased products for Federal preferential procurement. The products include a variety of personal and facility cleaning products, additional greases, oils, and lubricants, construction products, and other items. (See *Federal Register* – "USDA's Designation of Biobased Items for Federal Procurement")

FAR 23.404 states that each agency's APP must require that 100 percent of purchases of USDA-designated products and items contain biobased content.

Discussion:

The contract should specify—

- For biobased products, that the product is composed of—

  (i) The highest percentage of biobased material practicable, or
  (ii) USDA's recommended minimum contents standards.

The biobased program requires pre-award certification that the products meet USDA recommendations. An annual review and monitoring of the effectiveness of the program also is required.

The BioPreferred® Catalog includes:

- custodial services
- food services and cafeteria
- grounds maintenance
- intermediates
- minor construction
- miscellaneous
- operations and maintenance
- personal care and toiletries
- product packaging
- vehicle and equipment maintenance

References:

- USDA's BioPreferred program
- USDA's BioPreferred catalog
- USDA's Biopreferred product categories

FEDERAL ACQUISITION REGULATION (FAR) CLAUSES OR PROVISIONS

FAR Part 23 requires agencies to purchase biobased items:

- FAR 23.403 requires competitive cost-effective purchases of products that meet reasonable performance requirements and contain biobased content.

- FAR 23.404 requires agencies to have an APP program that provides guidelines for purchasing items with biobased content.

- FAR 23.406 requires the insertion of contract clauses on the use of USDA-designated products.

- FAR 23.703 requires agencies to implement cost-effective green contracting preference programs, employ sustainable acquisition strategies, and consider the use of biobased products.

FAR Part 52 includes the following applicable clauses and provisions:

- As prescribed in FAR 23.406(a), insert the provision at FAR 52.223-1, "Recovered Material Certification," in solicitations that require the delivery or specify the use of USDA-designated products.

- As prescribed in FAR 23.406(b), insert the clause at FAR 52.223-2, "Affirmative Procurement of Biobased Products Under Service and Construction Contracts," unless the contract will not involve the use of USDA-designated products."

D. Environmentally Preferable Products (EPP) and Services

Sponsoring Federal Agency: EPA

Description:

Environmentally preferable products (EPP) and services have a lesser or reduced negative effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison applies to raw materials, manufacturing, packaging, distribution, use, reuse, operation, maintenance, and disposal. EPP possess more than one environmentally friendly attribute.

The EPA's EPP program has summarized information about popular environmentally preferable products and services, including environmental attributes to look for, procurement guidance, tools, case studies, and other useful resources.

EPA maintains a database of products and specifications defined by Federal, State, and local agencies, and other nations.

Laws, Regulations, or Policies:

EO 13423 and CEQ's *Implementing Instructions* require that each agency give preference to the purchase of environmentally preferable products. The *Implementing Instructions* state that each agency shall purchase EPA's EPP.

Discussion:

EPA's EPP program helps the Federal Government "buy green," and in doing so, uses the Federal Government's enormous buying power to stimulate market demand for green products and services. Geared first to help Federal purchasers, this site can help green vendors, businesses large and small—and consumers. The easy-to-use index can be used to:

- Find and evaluate information about green products and services.
- Identify Federal green buying requirements.
- Calculate the costs and benefits of purchasing choices.
- Manage green purchasing processes.

Finding and Evaluating Green Products and Services:

- buildings and construction
- carpets
- cleaning
- electronics
- fleets

- food services
- landscaping
- meetings and conferences
- office supplies
- paper

To assist in the search for applicable items, the U.S. General Services Administration (GSA) has developed a useful tool, *Green Products Compilation* (GPC) to facilitate the procurement of green and sustainable products and services. The products listed are those for which EPA, DOE, or USDA has issued designations or otherwise provided guidance for environmental or energy attributes.

GSA's interactive tool consolidates and organizes information from the Federal green purchasing programs in one place, saving users from researching multiple Web sites. The tool allows Federal purchasers to search, sort, and identify sustainable products and their associated guidance documentation to facilitate green purchasing decisions.

GSA's GPC Tool:

- Features a refined search function.
- Provides summaries of the environmental programs (i.e., the green purchasing program components).
- Offers a new instructional page about the tool's functions.
- Provides users with the ability to search by keyword or browse by product category.
- Links to the EPA, DOE, and USDA environmental program Web sites.
- Distinguishes between mandatory purchasing programs and others that support the achievement of agency sustainable acquisition goals (e.g., EPA's *Design for the Environment Program*).
- Identifies applicable FAR requirements.

Identifies and links to potential purchasing options, including GSA Multiple Award Schedules, GSA Global Supply, AbilityOne, and UNICOR (Federal Prison Industries, Inc.).

- .
- Provides current changes in green product designations.

The designated green products are separated into 19 categories:

- building construction
- building finishes
- building interiors
- cafeteria services
- cleaning products
- contracted printing services
- landscaping

- lube, oil, hydraulic fluid and grease
- miscellaneous
- non-paper office products
- office electronics
- paper office products
- park and recreation
- personal care
- refrigeration and air conditioning
- renewable energy
- roadway construction
- traffic control
- vehicle products

References:

- EPA's EPP
- GSA's GPC

FEDERAL ACQUISITION REGULATION (FAR) CLAUSES OR PROVISIONS

FAR 23.703(b) states that agencies must maximize the use of environmentally preferable purchasing.

FAR Subpart 23.7 requires agencies to purchase environmentally preferable products:

- FAR 23.703 requires agencies to implement cost-effective green contracting preference programs, employ sustainable acquisition strategies, and consider the use of biobased products.

- FAR 23.704 requires contracts for contractor operation of Government facilities to include compliance measures for environmental mandates.

- FAR 23.705 requires Federal agencies to meet at least 95 percent of their annual acquisition requirement for electronic products categorized by EPEAT®, unless there is no EPEAT® standard for such products.

E. Electronic Product Environmental Assessment Tool (EPEAT®)-Registered Products

Sponsoring Federal Agency: EPA

EPEAT® was developed using a grant by the EPA and managed by the Green Electronics Council (GEC).

Description:

EPEAT® is a comprehensive environmental rating that helps identify greener computers and other electronic equipment. The EPEAT® system was conceived and developed through the collaboration of stakeholders from the business, advocacy, government, and academic arenas. EPEAT® is used by hundreds of companies, universities, and government agencies in dozens of countries. Its rigorous requirements and searchable product database let buyers bypass marketing hype and confusing specifications. For participating manufacturers, EPEAT® is a chance to showcase and validate greener designs and cleaner production. EPEAT® is a powerful tool for enhancing the sustainability performance of virtually any organization.

EPEAT® is dedicated to informing purchasers of the environmental criteria of electronic products. GEC's EPEAT® Web site provides guidance for purchasers and manufacturers and hosts the database of EPEAT®-registered products. EPEAT®-registered computer desktops, laptops, and monitors must meet an environmental performance standard for electronic products—IEEE 1680-2006.

Laws, Regulations, or Policies:

EO 13423 and CEQ's *Implementing Instructions* require that each agency give preference to the purchase of EPEAT®-registered electronic products and, when acquiring an electronic product to meet its requirements, meet at least 95 percent of those requirements with an EPEAT®-registered electronic product unless there is no EPEAT® standard for each product. Agencies also are required to strive to purchase EPEAT® silver-rated electronic products or higher, if available.

In 2009, the FAR was amended to require use of EPEAT® when acquiring personal computer products such as desktops, notebooks, laptops, and monitors pursuant to the EPAct of 2005 and EO 13423 (FAR Case 2006-030, EPEAT).

Discussion:

EPEAT® is intended to help purchasers select desktop computers, displays, integrated desktop computers, notebooks, tablet notebooks, thin clients, workstation desktops, and workstation notebooks based on their environmental attributes. EPEAT®-registered electronic products meet environmental measures referred to as criteria. All of the criteria used in EPEAT® are based on American National Standards Institute (ANSI)-approved public standards, which provide technical details for every criterion and specify how the manufacturer must demonstrate compliance.

EPEAT® criteria reflect several categories of environmental attributes that cover the full lifecycle of electronic products. The 1680.1 personal computer (PC) and display standard addresses:

- reduction or elimination of environmentally sensitive materials
- material selection
- design for end of life
- product longevity and life extension
- energy conservation
- end-of-life management
- corporate performance
- packaging

References:

- EPEAT® program
- EPEAT® registry search options

FEDERAL ACQUISITION REGULATION (FAR) CLAUSES OR PROVISIONS

The *Implementing Instructions* further require agencies to ensure that applicable electronics and information technology (EIT) contracts will incorporate appropriate language for the procurement of EPEAT®-registered equipment and address applicable FAR clauses.

FAR Part 52 includes the following applicable clauses and provisions:

- As prescribed in FAR 23.705(b)(1), insert the clause at FAR 52.223-16 that Institute of Electrical and Electronics Engineers (IEEE) 1680 Standard for the environmental assessment of personal computer products in all solicitations and contracts applies to the purchase of all: 1) personal computer products; 2) services that require furnishing of personal computer products for use by the Government; or 3) contractor operation of Government-owned facilities.

F. WaterSense or Other Water Efficient Products

Sponsoring Federal Agency: EPA

WaterSense is sponsored by the EPA in partnership with companies, organizations, communities, and individuals. There are more than 13,000 firms and other organizations participating in partnership programs.

Description:

WaterSense seeks to protect the future of our nation's water supply by offering people a simple way to use less water with water-efficient products, new homes, and services.

Laws, Regulations, or Policies:

EO 13423 and CEQ's *Implementing Instructions* require that each agency give preference to the purchase of water-efficient products, including those meeting EPA's WaterSense standards. The *Implementing Instructions* state that, where applicable, agencies should purchase WaterSense-labeled products and choose irrigation contractors who are certified through a WaterSense-labeled program.

Discussion:

The program seeks to help consumers make smart water choices that save money and maintain high environmental standards without compromising performance. Products and services that have earned the WaterSense label have been certified to be at least 20 percent more efficient without sacrificing performance.

WaterSense brings together a variety of stakeholders to:

- Promote the value of water efficiency.
- Provide consumers with easy ways to save water, as both a label for products and an information resource to help people use water more efficiently.
- Encourage innovation in manufacturing.
- Decrease water use and reduce strain on water resources and infrastructure.

Examples:

WaterSense products include showerheads, toilets, bathroom sink faucets and accessories, landscape irrigation controllers, and urinals.

References:

- EPA's Partnership Program Web site home page
- EPA's WaterSense

FEDERAL ACQUISITION REGULATION (FAR) CLAUSES OR PROVISIONS

FAR Part 23.2 requires agencies to purchase water-efficient products and services.

FAR 23.202 sets Federal policy to acquire supplies and services that promote water efficiency and help foster markets for emerging technologies. This policy extends to all acquisitions, including those below the simplified acquisition threshold.

G. Products Containing Non- or Lower-Ozone-Depleting Substances – Significant New Alternatives Policy (SNAP)

Sponsoring Federal Agency: EPA

Description:

SNAP is used to evaluate and regulate substitutes for the ozone-depleting chemicals that are being phased out under the stratospheric ozone protection provisions of the CAA.

The program reviews alternatives to ozone-depleting substances and approves the use of alternatives that do not present a substantially greater risk to public health and the environment than the substances they replace or than other available substitutes. SNAP provides lists of acceptable and unacceptable substitutes.

Laws, Regulations, or Policies:

EO 13423 and CEQ's *Implementing Instructions* require that each agency give preference to the purchase of non-ozone-depleting substances, as identified in SNAP. The *Implementing Instructions* require that each agency maximize the use of safe alternatives to ozone-depleting substances, as approved by SNAP.

Reference:

- SNAP: EPA ozone layer protection

FEDERAL ACQUISITION REGULATION (FAR) CLAUSES OR PROVISIONS

FAR Part 23.8 requires agencies to minimize the purchase of ozone-depleting substances (ODS).

FAR 23.803 requires agencies to minimize procurement of ODS and to give preference to suitable, safe alternatives. It states that agencies shall give preference to the procurement of alternative products that reduce overall risks to human health and the environment by lessening the depletion of ozone in the upper stratosphere. It further requires that in preparing specifications and purchase descriptions, and the acquisition of supplies and services, agencies shall comply with the requirements of the CAA and substitute safe alternatives to ozone-depleting substances.

- FAR 23.804 requires the insertion of contract clauses on ODS and the service of refrigeration equipment and air conditioners.

FAR Part 52 includes the following applicable clauses and provisions:

- As prescribed in FAR 23.804(a), insert FAR 52.223-11, “Ozone-Depleting Substances,” in solicitations and clauses for ozone-depleting substances or for supplies that may contain or be manufactured with ozone-depleting substances.

- As prescribed in FAR 23.804(b), insert FAR 52.223-12, “Refrigeration Equipment and Air Conditioners,” in solicitations and contracts for services when the contract includes the maintenance, repair, or disposal of any equipment or appliance using ozone-depleting substances as a refrigerant, such as air conditioners, including motor vehicles, refrigerators, chillers, or freezers.

H. Products Containing Non- or Low-Toxic or Hazardous Constituents

Sponsoring Federal Agency: EPA

Description:

Hazardous waste is defined as liquid, solid, contained gas, or sludge wastes that contain properties that are dangerous or potentially harmful to human health or the environment.

Under RCRA, a waste is hazardous if it is a "listed" as waste or it exhibits a hazardous characteristic.

- Title 40 of the Code of Federal Regulations (40 CFR) Part 261, "Lists of Hazardous Waste"
- 40 CFR 261.31, "Hazardous Wastes from Nonspecific Sources"
- 40 CFR 261.32, "Hazardous Wastes from Specific Sources"
- 40 CFR 261.33, "Discarded Commercial Chemical Products, Off-Specification Species, Container Residues, and Spill Residues Thereof"

Volatile Organic Compounds (VOCs)

VOCs are emitted as gases from certain solids or liquids. They include a variety of chemicals, some of which may have short- and long-term adverse health effects. Concentrations of many VOCs are consistently higher indoors (up to 10 times higher) than outdoors. VOCs are emitted by a wide array of products numbering in the thousands.

VOCs are found in everything from paints and coatings to underarm deodorant and cleaning fluids. They are a major concern of the EPA and State air quality boards all over the United States. VOCs are a major contributing factor to ozone, a common air pollutant, which has been proven to be a public health hazard.

Laws, Regulations, or Policies:

The CAA gives the EPA authority to regulate VOCs in the air. They originate from natural and manmade materials. VOCs that result in outdoor air pollution are considered toxic chemicals. A few products, such as outdoor paints and industrial solvents, fall under the CAA. VOCs are considered dangerous partly because environmental release causes a reaction that produces dangerous ground-level ozone.

Examples:

VOCs can be found in paints and lacquers, paint strippers, cleaning supplies, pesticides, building materials and furnishings, office equipment such as copiers and printers, correction fluids and carbonless copy paper, graphics and craft materials such as glues and adhesives, permanent markers, and photographic solutions. Organic chemicals are widely used as ingredients in household products. Paints, varnishes, and wax all contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing, and hobby products. Fuels are made up of organic chemicals. All of these products can release organic compounds during use and, to some degree, when they are stored.

Discussion:

While ozone in the upper atmosphere is beneficial, ozone at ground level is quite the opposite. The atmospheric ozone layer helps protect us from the sun's dangerous ultraviolet rays. Ground-level ozone, however, is a highly reactive gas that, according to EPA studies, "affects the normal function of the lung in many healthy humans."

These studies show that breathing air with ozone concentrations above air quality standards aggravates symptoms of people with pulmonary diseases and seems to increase rates of asthma attacks. There also is evidence that prolonged exposure to ozone causes permanent damage to lung tissue and interferes with the functioning of the immune system.

Short-term exposure to high levels of some VOCs can cause headaches, dizziness, light-headedness, drowsiness, nausea, and eye and respiratory irritation. These effects usually go away after the exposure stops. In laboratory animals, long-term exposure to high levels of some VOCs has caused cancer and affected the liver, kidneys and nervous system. In general, EPA recommends minimizing exposure to chemicals, if possible.

Examples of Household Products	Possible VOC Ingredients
Fuel containers or devices using gasoline, kerosene, fuel oil and products with petroleum distillates: paint thinner, oil-based stains and paints, aerosol or liquid insect pest products, mineral spirits, and furniture polishes	BTEX (benzene, toluene, ethylbenzene, xylene), hexane, cyclohexane, 1,2,4-trimethylbenzene
Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, and hair spray	Acetone, ethyl alcohol, isopropyl alcohol, methacrylates (methyl or ethyl), ethyl acetate
Dry-cleaned clothes, spot removers, fabric or leather cleaners	Tetrachloroethene (perchloroethene (PERC), trichloroethene (TCE))
Citrus (orange) oil or pine oil cleaners, solvents, and some odor-masking products	d-limonene (citrus odor), a-pinene (pine odor), isoprene
Polyvinyl chloride (PVC) cement and primer, various adhesives, contact cement, and model cement	Tetrahydrofuran, cyclohexane, methyl ethyl ketone (MEK), toluene, acetone, hexane, 1,1,1-trichloroethane, methy-isobutyl ketone (MIBK)

Paint stripper and adhesive (glue) removers	Methylene chloride, toluene, older products may contain carbon tetrachloride
Degreasers, aerosol penetrating oils, brake cleaner, carburetor cleaner, commercial solvents, electronics cleaners, and spray lubricants	Methylene chloride, PERC, TCE, toluene, xylenes, methyl ethyl ketone, 1,1,1-trichloroethane
Moth balls, moth flakes, deodorizers, and air fresheners	1,4-dichlorobenzene, naphthalene
Refrigerant from air conditioners, freezers, and refrigerators, dehumidifiers	Freons (trichlorofluoromethane, dichlorodifluoromethane)
Aerosol spray products for some paints, cosmetics, automotive products, leather treatments, and pesticides	Heptane, butane, pentane
Upholstered furniture, carpets, plywood, and pressed wood products	Formaldehyde

References:

- 40 CFR. Part 261
- EPA: An Introduction to Indoor Air Quality (IAQ)
- The Pollution Information site

I. Alternative Fuel Vehicles and Alternative Fuels

Sponsoring Federal Agency: DOE

Description:

The Alternative Fuels and Advanced Vehicles Data Center (AFDC) provides information, data, and tools to help fleets and other transportation decisionmakers find ways to reduce petroleum consumption through the use of alternative and renewable fuels, advanced vehicles, and other fuel-saving measures.

Vehicle emissions are known to negatively affect air quality and human health. For these reasons, emission reduction plays a role in many fleet and consumer decisions to acquire alternative fuel vehicles (AFVs). However, many drivers don't know that emission reductions vary between alternative fuels. FEMP details emission pollutants and their impact on human health and the environment, compares alternative fuel emissions with those of their conventional counterparts, and explains the methodology used to compare vehicle emissions.

Laws, Regulations, or Policies:

The alternative fuel vehicle and alternative fuels Federal acquisition program definitions and requirements are established by Title III of the EPAct of 1992, as amended by the EPAct of 2005 and EISA of 2007 and EO 13423. Under the EPAct, alternative fuel vehicles are defined as any dedicated flexible-fuel or dual-fuel vehicle designed to operate on at least one alternative fuel. Under EO 13514, the objective is to reduce the volume of carbon dioxide (CO_2) emissions, commonly referred to as greenhouse gas (GHG). E.O. 13514 requires agencies to measure, manage, and reduce greenhouse gas emissions toward agency-defined targets. It describes a process by which Federal agency goals will be set and reported to the President by the Chair of CEQ. The E.O. requires agencies to meet a number of energy-, water-, and waste-reduction-targets, including: 30 percent reduction in vehicle fleet petroleum use by 2020. Under the EPAct, alternative fuel vehicles are defined as any dedicated, flexible-fuel, or dual-fuel vehicle designed to operate on at least one alternative fuel. As defined by the EPAct, alternative fuels (AFs) are substantially nonpetroleum based fuels and include (but are not limited to) the following: ethanol at an 85 percent blend or higher (E85), liquefied petroleum gas (propane), compressed natural gas (CNG), biodiesel, electricity, hydrogen, and P-series fuels.

Federal agencies are mandated by the EPAct, EO 13423, and EISA to purchase alternative fuel vehicles, increase consumption of alternative fuels, and reduce petroleum consumption. Federal fleets are required to obtain 75 percent of their light-duty annual acquisitions as AFVs in metropolitan statistical areas (MSAs). An MSA

is a U.S. Government classification for a free-standing urban population center with a population in the urban center of at least 50,000 and a total population of 100,000 or more. Vehicles acquired outside of the MSAs also count toward an agency's percentage, but are not required.

Section 301 of the EPAct defines alternative fuels as:

- biodiesel
- ethanol
- electricity
- hydrogen
- methanol
- mixtures containing up to 85 percent methanol or de-natured ethanol
- natural gas
- propone (liquefied petroleum gas)

In addition, Section 2862 of the National Defense Authorization Act of 2008 (NDAA 2008) expanded the definition of AFVs. AFVs include the following four types of vehicles:

- a new qualified fuel cell motor vehicle
- a new advanced lean burn technology motor vehicles
- a new qualified hybrid motor vehicle
- any other type of vehicle that the EPA Administrator demonstrated to the Secretary of Energy would achieve a significant reduction in petroleum consumption

Federal agencies are required to use GSA when making vehicle purchases. To meet environmental standards, GSA offers Federal agencies fuel-efficient vehicles that provide long-term environmental benefits. Agencies can purchase these vehicles from GSA AutoChoice, lease them from the GSA Fleet, or use GSA Schedules to lease automobiles and light trucks directly from automotive vendors.

References:

- GSA Buy Green Vehicles
- GSA Fleet and Automotive
- GSA Vehicle Buying Overview
- GSA Motor Vehicle Management Overview
- EPA Green Vehicle Guide, EPA SmartWay Partnership
- DOE Fuel Economy Web site
- DOE Alternative Fuel Vehicle Emissions
- DOE Sustainable Federal Fleets
- DOE Alternative Fuels Data Center
- 41 CFR 101-26.501–Purchase of new motor vehicles
- 48 CFR. 908.7101-2–Consolidated acquisition of new vehicles by General Services Administration

As defined by the EPAct of 2005, alternative fuels are substantially non-petroleum-based fuels and include, but are not limited to, the following:

- **Biodiesel –** Biodiesel is a domestically produced, renewable fuel that can be manufactured from new and used vegetable oils, animal fats, and recycled restaurant grease. Biodiesel's physical properties are similar to those of petroleum diesel, but it is a cleaner-burning alternative. Using biodiesel in place of petroleum diesel reduces emissions (see Biodiesel Vehicle Emissions).

- **Ethanol –** Ethanol is produced domestically from corn and other crops. The alcohol found in alcoholic beverages is ethanol. Ethanol is an alcohol-based fuel made by fermenting and distilling starch crops, such as corn. It can also be made from "cellulosic biomass" such as trees and grasses. However, the ethanol used for motor fuel is denatured, which means poison has been added so people can't drink it. E85 is a high-level gasoline-ethanol blend that contains between 51 percent and 83 percent of ethanol, depending on geography and season. Ethanol produces less greenhouse gas emissions than conventional fuels. The use of ethanol can reduce greenhouse gas emissions (see Ethanol Vehicle Emissions).

- **Electricity –** Electric vehicles use electrical energy stored in batteries or another energy-storage device (see Electric Vehicle Emissions).

- **Hydrogen –** Hydrogen can be produced domestically from fossil fuels (such as coal), nuclear power, or renewable resources, such as hydropower. Fuel cell vehicles powered by pure hydrogen emit no harmful air pollutants. Because hydrogen burns nearly pollution free, it has been looked at as the ultimate clean fuel. When burned, it turns into heat and water vapor. When burned in an internal combustion engine (the kind of engine in gasoline cars today), the combustion also produces small amounts of other gases. These other gases are mostly oxides of nitrogen because the hydrogen is being burned with air, which is about two-thirds nitrogen. Being a noncarbon fuel, the exhaust is free of carbon dioxide. Carbon dioxide, emitted when consumers burn fossil fuels, is causing the world's climate to change (see Hydrogen Vehicle Emissions).

- **Methanol –** Methanol is typically made from natural gas, although it is possible to produce it by fermenting biomass (this is why it is sometimes called "wood alcohol"). This fuel source is not yet economically competitive. Because it is easier to transport natural gas to a distant market by converting it to methanol, which is a liquid at ordinary temperatures and pressures, than by chilling and liquefying it or by building a long pipeline, some petroleum-exporting countries are looking at exporting their "waste" natural gas (which they currently "flare off" in huge flames visible from the Space Shuttle!) by converting it to methanol. However, most of the natural gas that goes into methanol in the United States is still domestically produced. For reasons explained below, most fuel methanol in this country is sold as a blend of 85 percent methanol with 15 percent unleaded premium gasoline, which explains the significance of "M85." In the not-too-distant future, "neat" (100 percent) methanol may be the preferred means of storing hydrogen for fuel-cell electric vehicles, but this technology is still in the research and development (R&D) stage.

- **Denatured Alcohol –** Denatured alcohol or methylated spirits is ethanol that has additives. Denatured alcohol is a colorless, liquid form of alcohol to which chemicals are added to alter the chemical makeup of the product. Denatured alcohol is commonly ethanol with chemicals, including methanol, isopropanol, and gasoline, added to change the purpose of the alcohol. Ethanol is denatured with the addition of gasoline to create a denatured alcohol that is a high octane fuel capable of creating energy when burned within a combustion engine. To denature ethanol for renewable fuels, gasoline is commonly added to the fuel in various mixtures to create fuels capable of performing at different levels. Common ethanol mixtures are E10, which is made up of 10 percent ethanol and 85 percent gasoline, and E85, a higher performing fuel with 85 percent ethanol and 15 percent gasoline.

- **Natural Gas –** Natural gas is a fossil fuel that generates less air pollutants and greenhouse gases. Natural gas is mostly made up of methane, about 95 percent of the natural gas. The other 5 percent is made up of various gases along with small amounts of water vapor. These other gases include butane, propane, ethane and other trace gases. It is clean burning and not made from petroleum, as gasoline and diesel are. Cars, vans, buses and small trucks generally use natural gas that has been compressed (called compressed natural gas or CNG) and stored in high-pressure cylinders (see Natural Gas Vehicle Emissions).

- **Propane –** Propane, also called liquefied petroleum gas (LPG), is a domestically abundant fossil fuel that generates less harmful air pollutants and greenhouse gases. LPG is mostly made up of a mixture of propane and other similar types of hydrocarbon gases. Different batches of LPG have slightly different amounts of the different kinds of hydrocarbon molecules. These hydrocarbons are gases at room temperature, but turn to liquid when they are compressed. LPG is stored in special tanks that keep it under pressure, so it stays a liquid.

- **P-series fuels (blends) –** P-series fuels is a family of renewable, nonpetroleum, liquid fuels that can be substituted for gasoline. They are a blend of 25 or so domestically produced ingredients. About 35 percent of P-Series fuels come from liquid by-products, known as “C5+” or “pentanes-plus,” which are left over when natural gas is processed for transport and marketing. Ethanol, fermented from corn, comprises about 45 percent, and the remaining 20 percent is MeTHF, an ether derived from lignocelullosic biomass: paper sludge, wastepaper, food waste, yard and wood waste, agricultural waste, and so on (see IAGS **–** P-Series Fuels).

III. ROLES AND RESPONSIBILITIES

This section outlines the roles and responsibilities of each office and official.

A. Federal Environmental Executive (FEE)

EO 13423 required the designation of a Federal Environmental Executive to ensure that agencies comply with the requirements of the EO.

The Federal Environmental Executive is housed within CEQ, OFEE. A 1983 EO created the OFEE position, which oversees implementation of President Barack Obama's EO on federal sustainability (EO 13514) and the GreenGov initiative, working collaboratively with the Office of Management and Budget (OMB) and each of the Federal agencies.

EO 13423, Section 6, entitled "Duties of the Federal Environmental Executive," requires the appointment of *a* Federal Environmental Executive, designated by the President, to head OFEE. The Federal Environmental Executive is required to:

- Monitor, and advise the chairman of the council on, performance by agencies of functions assigned by Section 2 and 3 of this order.

- Submit a report to the President, through the chairman of the council, not less often than once every 2 years, on the activities of agencies to implement this order.

- Advise the chairman of the council on the chairman's exercise of authority granted by Subsection 4(c) of the order.

B. NRC Senior Sustainability Officer (SSO)

The SSO is the Director, Office of Administration.

EO 13514 required each Federal agency to designate a Senior Sustainability Officer (SSO) from among the agency's senior management officials. These officials are accountable for agency conformance with the requirements of this order, including the preparation of targets for agencywide greenhouse gas reductions, the submission of a strategic sustainability performance plan, and the monitoring of agency performance and progress in meeting the goals of the order.

The Senior Sustainability Officer is responsible for:

- Promulgating and implementing the agency's policies and regulations for green purchasing.

- Coordinating environmental education and promotional activities.

- Reviewing and approving reports to the Chair of CEQ and the Director of OMB.

- Implementing EO 13423 "Strengthening Federal Environmental, Energy, and Transportation Management," January 2007 .

- Implementing EO 13514 “Federal Leadership in Environmental, Energy, and Economic Performance,” October 2009.

- Coordinating all environmental programs in the areas of acquisition, facilities management, fleet, conservation, waste prevention, and recycling.

The Director, Office of Administration, is more specifically responsible for:

- Directing, integrating, and coordinating NRC’s GPP.

- Providing program leadership and coordination for the NRC’s APP according to EO 13423 and EO 13514.

- Managing development of regulations, policies, and guidance on green purchasing programs.

- Consulting with managers on green purchasing requirements.

- Ensuring that green purchasing requirements are addressed in the NRC’s acquisition regulations, Management Directive 11.1, “NRC Acquisition of Supplies and Services,” and other policy guidance.

- Coordinating the preparation, review, analysis, and submission of reports on the NRC’s progress towards meeting the goals of EO 13423 and EO 13514 to CEQ‘s Chair and the Director, OMB).

- Monitoring agency progress in meeting goals and requirements of EO 13423 and EO 13514.

- Establishing and implementing environmental and energy performance measures and data input to meet EO and OMB scorecard reporting requirements.

- Providing oversight of green purchasing training for acquisition and program office personnel and purchase cardholders.

C. Regional Administrators (RA)

Regional Administrators are responsible for:

- Ensuring that regional office purchases comply with this GPP for the acquisition of green products and services.

- Providing reports or data to DAS, the Division of Facilities and Security (DFS) and the Division of Contracts (DC) on green purchasing information for reports to OMB or OFEE.

- Advocating, promoting, and supporting regional office recycling programs by GSA and lessors.

- Identifying and implementing opportunities to reduce waste.

- Complying with EO 13423 and EO 13514 and other Federal regulations.

- Ensuring that 95 percent of all eligible contract actions, including task and delivery orders, require the supply or use of products and services that are energy-efficient (EnergyStar® or FEMP-designated products), water efficient, biobased, environmentally preferable (excluding EPEAT®-registered products), non-ozon- depleting, contain recycled content, or are non- or low-toxic alternatives.

D. Director, Division of Administrative Services (DAS)

The Director, Division of Administrative Services, Office of Administration, is responsible for:

- Directing agency waste reduction and recycling programs.

- Coordinating with the DC (lead) in the development and implementation of acquisition policies and procedures to comply with EO 13423 and EO 13514.

E. Director, Division of Contracts (DC)

The Director, Division of Contracts, Office of Administration, is responsible for:

- Promulgating and implementing the agency's GPP in coordination with DAS/DFS.

- Promulgating and implementing procurement policies and regulations in coordination with DAS and DFS, to comply with EO 13423 and EO 13514.

- Ensuring NRC procurement staff is given adequate guidance and training in coordination with DAS and DFS to comply with EO 13423 and EO 13514.

- Coordinating with DAS and DFS to provide acquisition guidance and training to NRC staff necessary to comply with EO 13423 and EO 13514.

- Providing acquisition data to DAS and DFS for reports required by EO 13514.

- Informing procurement staff and program offices of their responsibilities under the NRC's GPP and providing them with information about Federal environmental programs.

- Evaluating the NRC's practices, providing oversight and coordinating outreach and training for staff.

- Working with the Director, ADM, and DFS to review and analyze green purchasing data for inclusion in agency reports.

- Ensuring that 95 percent of all eligible contract actions, including task and delivery orders, require the supply or use of products and services that are energy-efficient (EnergyStar® or FEMP-designated products), water efficient, biobased, environmentally preferable (excluding EPEAT®-registered products), non-ozone-depleting, contain recycled content, or are non- or low-toxic alternatives.

F. Director, Division of Facilities and Security (DFS)

The Director, Division of Administrative Services, Office of Administration, is responsible for:

- Implementing tools to incorporate EO 13423 and EO 13514 and the NRC's Strategic Plan into real property management, including energy efficiency, waste reduction, and acquisition of environmentally preferable products.

- Ensuring that facility statements of work specify product specifications in accordance with the NRC's APP, GPP, and Federal green purchasing guidelines and requirements and other Federal environmental requirements.

- Coordinating the submission of Strategic Sustainability Performance Plans to OMB in coordination with DAS and DC.

G. Chief, Administrative Services Center (ASC)

The Chief, Administrative Services Center Branch, Division of Administrative Services, Office of Administration, is responsible for:

- Ensuring that supply specifications require recovered material content in accordance with the NRC's APP, GPP, and Federal green purchasing guidelines and requirements.

H. Chief, Facilities Management Branch (FMB)

The Chief, Facilities Management Branch, is responsible for:

- Monitoring the activities of the Program Manager for Greening Initiatives, agency recycling coordinator, and facility recycling coordinators.

- Supporting the Director, DFS, in:

  - Implementing tools to incorporate EO 13423 and EO 13514 and the NRC's Strategic Plan into real property management, including energy efficiency, waste reduction and acquisition of environmentally preferable products.

  - Ensuring that facility statements of work specify product specifications in accordance with the NRC's APP, GPP, and Federal green purchasing guidelines and requirements and other Federal environmental requirements.

  - Coordinating the submission of strategic sustainability performance plans to OMB in coordination with DAS and DC.

I. Program Manager for Greening Initiatives

The Program Manager for Greening Initiatives, located in the Facilities Management Branch, is responsible for:

- Serving as the NRC's primary point of contact on environmental issues.
- Reviewing and monitoring agency procurement of recycled content products in accordance with RCRA Section 6002(i) and this GPP, and recommending appropriate actions to agency managers for program improvement.
- Providing GPP guidance to staff and keeping the Senior Sustainability Officer and managers informed of APP activities.
- Providing assistance to NRC staff in identifying sources and products and in reviewing specifications, when requested.
- Preparing reports to OMB or OFEE on the NRC's environmental program.

J. Agency Recycling Coordinator (ARC)

The ARC, located in the Facilities Management Branch, is responsible for:

- Implementing Headquarters recycling and waste prevention program activities and providing assistance to Facility Recycling Coordinators in implementing their programs.
- Promoting recycling efforts through outreach efforts that include Earth Day and America Recycles Day activities.
- Providing up-to-date recycling information on the NRC's ADM Recycling Program on the intranet.

K. Facility Recycling Coordinators (FRC)

The FRCs, located in the Facilities Management Branch, are responsible for:

- Promoting and implementing recycling and waste prevention programs managed by GSA and building lessors at non-Headquarters building sites.

L. Environmental Point of Contact (for Division of Contracts)

The Division of Contract's (DC) Environmental Point of Contact, is responsible for:

- Providing guidance, policies, and procedures to DC staff and CORs on environmental requirements and issues.
- Facilitating training for DC staff on at least an annual basis.
- Providing support to DC and CORs on green issues, as necessary.

- Providing FMB with required green purchasing information for OMB's annual Sustainability Report and other required reports.

- Creating and updating green purchasing information and materials for ADM.

- Receiving annual contractor reports for procurements of biobased products under service and construction contracts, and providing any required reports, as required in FAR 52.223-2, in coordination with the Facilities Management Branch.

M. Contracting Officers and Contract Specialists

Contracting Officers and Contract Specialists are responsible for:

- Ensuring purchases comply with the NRC's APP, GPP, and Federal green purchasing guidelines and requirements.

- Reviewing program office justifications for not purchasing an EPA-designated product containing recovered materials and including approved justifications in the official contract files (see justification requirements at FAR 23.405(b)).

- Reviewing program office justifications for not purchasing EnergyStar®- or EPEAT®-registered products and including approved justifications in the official contract files (see justification requirements at FAR 23.704(c)).

- Reviewing requests to ascertain and validate whether green products or services are involved in the procurement action.

- Ensuring that solicitations and contracts (including task and delivery orders and purchase orders) contain the appropriate provisions and clauses pursuant to FAR Part 23.

- Providing guidance and facilitating acquisition planning to program office personnel with respect to environmentally preferable goods and services.

- Requiring that vendors certify that the percentage of recovered materials and biobased products to be used in the performance of the contract will be at least the amount required by applicable specifications or other contractual requirements as delineated in Section 6002 of RCRA (1976) or Section 9002 of FSRIA (2002).

- Employing lifecycle cost analysis, whenever feasible and appropriate, to assist in making product and service selections.

- Ensuring that green purchases are recorded accurately and timely in the agency automated acquisition system.

- Implementing the provisions in the NRC APP.

- Ensuring that vendors are familiar with green purchasing requirements contained in their solicitations or contracts.

- Reviewing with appropriate vendors their role in the procurement of green products and services during the initial contract kickoff meeting and reinforcing with the contractor, when appropriate, during contract performance.

- Ensuring that applicable FAR green purchasing language and clauses and GPP requirements are included when modifying existing contracts that contain green products.

N. Program Offices

Program Offices (Requirements Officials) are responsible for:

- Being aware of Federal green purchasing programs and requirements.

- Determining if green products or services are required.

- Identifying and documenting if green products and services are available and can satisfy requirements for price, availability, and performance.

- Ensuring that relevant green procurement requirements are identified before submission to the contracting office or other source of supply so that final and approved purchase requests properly address all relevant green procurement requirements.

- Considering life-cycle cost concepts to determine cost effectiveness of green products and services for use in procurement decisions.

- Including a written justification with the procurement requisition for an acquisition that describes why an EPA-designated product(s) containing recovered materials was not acquired (see FAR 23.405(b)(2)).

- Including a written justification with the procurement requisition for an acquisition that describes why an EnergyStar®-designated or EPEAT®-registered product(s) was not acquired (see FAR 23.704(c)).

- Consulting early in the procurement process with appropriate parties (e.g., environmental specialists, energy personnel, contract specialists and contracting officers, environmental points of contact) to facilitate acquisition planning and to prepare statements of work or specifications that include: elimination of virgin raw materials (and use of recycled raw material inputs); reuse of products; use of recovered materials; energy and water efficiency; recyclability; or other environmentally preferable products or services

- Monitoring contract performance to ensure compliance with green procurement requirements in accordance with the terms of the contract.

- Implementing the provisions in the GPP.

- Using boilerplate specifications and model templates for contracts, as appropriate.

- Ensuring that specifications require the use of environmentally preferable products and services to the maximum extent practicable.

O. Purchase Card Program Manager

The Purchase Card Program Manager is responsible for:

- Including and updating green purchasing requirements in the *Purchase Card Handbook*.
- Conducting reviews, as part of annual audits, to ensure cardholders are meeting Government Purchase Card Program requirements in compliance with this GPP.
- Implementing the provisions in the GPP.
- Reviewing cardholder entries in the Financial Accounting and Integrated Management Information System to ensure purchases are in compliance with the GPP and ensuring that cardholders have noted the appropriate exemptions for non-GPP compliant purchases.

Reference:

- ADM's *Purchase Card Handbook*

P. Purchase Card Holders

Purchase cardholders are responsible for:

- Purchasing green products and services when making purchases, including those at or below the micro-purchase threshold, in accordance with FAR 13.201.
- Receiving training on the requirement to purchase green products and services.
- Knowing and implementing the *Purchase Card Handbook* and GPP.

Q. Contractors

Contractors are responsible for:

- Complying with green purchasing requirements set forth in their contracts.
- Providing reports to the NRC in accordance with FAR 52.223-2 for biobased products.

R. State and Local Agencies

State and local agencies are responsible for:

- Establishing an APP program and purchasing products containing recovered materials when buying more than $10,000 worth of EPA-designated products in a year and receiving some Federal funds for the purchase.

- Complying with green purchasing requirements set forth in their Federal grants.

IV. AFFIRMATIVE PROCUREMENT PROGRAM (APP)

A. Objectives

- Inform all appropriate NRC employees on the requirements of the Federal green procurement preference programs, their roles and responsibilities relevant to these programs, and the opportunities to purchase green products and services.

- Purchase green products and services to the maximum extent practicable, consistent with the demands of the mission, efficiency, cost-effectiveness, and performance with continual improvement toward meeting federally established procurement goals.

- Reduce the amount of solid and hazardous waste generated.

- Reduce the consumption of energy and natural resources.

- Expand markets for green products and services.

B. Policy

Section 6002 of RCRA, as amended (42 U.S.C. 6962), requires procuring agencies to implement an APP consisting of four elements: 1) a preference program, 2) a promotion program, 3) procedures for estimation, certification, and verification, and 4) procedures for annual review and monitoring.

The NRC will provide a preference for recycled content, EnergyStar®- and FEMP-designated energy-efficient products, low standby power, biobased, EPP, EPEAT®, water-efficient, non-ozone-depleting products, and alternative fuel vehicles and alternative fuels. This preference will be established in all NRC contracts, as appropriate, in accordance with Section 6002 of RCRA, Section 104 of the EPAct, Section 9002 of FSRIA, and the FAR.

In terms of the NRC's relevant purchases, 100 percent must meet or exceed EPA guideline standards unless there is written justification that the products or services: (a) are not available competitively or within a reasonable time frame, (b) do not meet appropriate performance or safety standards, or (c) are available only at an unreasonable price. For biobased products, preference is given for purchasing the product with the highest percentage of biobased content.

Purchase card holders and contracting officers must document the file, with input from the requesting program office, when justifying the purchase of other than environmentally preferable products and services.

Recycled content products must be purchased containing the percentages of recovered materials (recycled content) indicated in EPA's recommended recovered materials minimum content ranges. A complete listing of recycled content products is available at CPG Products.

C. Hazardous Materials Prohibitions, Limitations, and Requirements

1. Prohibitions on EPA Priority Chemicals

FAR 23.703 requires agencies to eliminate or reduce the generation of hazardous waste and promote the use of non-hazardous materials. EPA has defined a priority chemical list to include very specific uses of cadmium, lead, polychlorinated biphenyls (PCBs), mercury, and naphthalene as follows:

- cadmium – electroplating processes
- lead – soldering processes
- PCBs – when used as insulating material (dielectric fluids in electrical equipment such as transformers and ballasts)
- mercury – aneroid manometers and temperature measuring devices, electronic thermostats, mechanical switches, and ultrasonic and photoelectric sensors
- naphthalene – pesticides and pesticide applications

The NRC prohibits use of these chemicals in the applications and equipment listed above. As a result, whenever procuring equipment or materials as described above, NRC purchasers must look for alternatives to the five priority chemicals or products containing them.

2. Purchase Alternatives to Hazardous Chemicals and Ozone-Depleting Substances

Consistent with FAR 23.303, the NRC should purchase alternatives to hazardous chemicals and ODS (as defined by the EPA) and minimize the acquisition of materials and substances that also contribute to ozone depletion. SNAP lists alternatives to ozone-depleting substances.

FAR Subpart 23.8 outlines guidance for procurement of items that contain or use ODS. Building construction, renovation and maintenance products; products for metals cleaning, electronics cleaning, and precision cleaning; and products used in fire suppression systems might all contain ODS. Thus, in preparing requisitions and solicitations (specifications) for purchase of supplies or services, the NRC will ensure that acquisitions comply with the CAA and use safe alternatives to ozone-depleting substances.

The NRC will give preference to the procurement of alternative chemicals, products, and manufacturing processes that reduce overall risks to human health and the environment by lessening the depletion of the ozone in the upper atmosphere.

3. Hazardous Material Identification and Material Safety Data Substances

The contracting officer will obtain information during evaluation of proposals relative to the hazards that may be introduced into the workplace or environment by the supplies being acquired such as:

- Guidelines required by Federal Standard No. 313 (including revisions adopted during the term of the contract) in obtaining hazardous material (48 CFR 23.3).

- Supplies identified by an NRC technical representative as being potentially hazardous and requiring safety controls.

Accordingly, offerors and contractors are required to submit hazardous materials data whenever the supplies being acquired are identified as hazardous materials. The successful offeror shall be required to submit Material Safety Data Sheets (MSDS) before the contract award, unless the offeror certifies that the supplies are not hazardous, and again by the contractor at the time of delivery consistent with FAR 52.223-3. The contracting officer shall provide a copy of all MSDS received to the safety officer or other designated individual (DOE Chemical Safety Program).

D. Implementation of the NRC's GPP

1. Implementation of the GPP—Includes all Parties in the Acquisition Process

The successful implementation of the NRC's GPP begins during early market research and culminates with a requisition prepared by a program office. It is the responsibility of the program office COR to ensure that the goods or services being procured comply with purchasing guidelines for the use of designated recycled content products (i.e., CPG), EPEAT®-registered products, EnergyStar®- and FEMP-designated efficient products and appliances, USDA-designated biobased products (Biopreferred® program), environmentally preferable products, WaterSense and other water efficient products, products containing non- or lower-ozone-depleting substances (i.e., SNAP), and products containing non- or low-toxic or hazardous constituents (e.g., non-VOC paint).

The process of promoting environmentally preferable products or services includes the program office and contracting officers, environmental managers, senior and executive management and other NRC personnel. The requirements official shall review the list of EPA-designated products to determine if there is an item available that meets the standards.

2. Acquisition Planning and Specifications

FAR 7.103 and EO 13423 require agency planners to consider energy-efficient products and services, products containing energy-efficient standby power devices, products containing recovered materials, biobased products, and environmentally preferable products and services.

NRC personnel involved in planning for acquisitions must consider the use of green products from the initial stages of acquisition planning. Agency program offices must develop, review, and revise specifications, product descriptions, and standards during the acquisition planning stage to enhance the NRC's procurement of designated recycled content products (i.e., CPG), EPEAT®-registered products, EnergyStar®- and FEMP-designated efficient products and appliances, USDA-designated biobased products (Biopreferred® program), environmentally preferable products, WaterSense and other water efficient products, products containing non- or lower-ozone-depleting substances (i.e., SNAP), and products containing non- or low-toxic or hazardous constituents (e.g., non-VOC paint).

During procurement planning, program office CORs and their contracting officers must also be involved jointly in the decisionmaking process.

They should review and address the following areas:

- Identify green products required in the performance of the statement of work (SOW) or opportunities for greening the contract or order while maintaining the integrity of the work.

- Review applicable sections of the GPP or consult with other sources of information, such as FAR Part 23, about procedures to follow and applicable clauses or provisions to use.

- Include appropriate solicitation language, FAR and NRC clauses, and procedures in compliance with the NRC's GPP.

- Include relevant EPA-designated products, if any, that meet or exceed EPA's recommended recycled content percentages unless there is written justification included in the contract file.

- Include relevant USDA-designated biobased products, if any.

- All appropriate solicitations and resulting contracts must include language notifying vendors that the NRC reserves the right to substitute or add designated recycled content products (i.e., CPG products list), EPEAT®-registered products, EnergyStar®- and FEMP-designated efficient products and appliances, USDA-designated biobased products (Biopreferred® program), environmentally preferable products, WaterSense and other water efficient products, products containing non- or lower-ozone-depleting substances (i.e., SNAP), and products containing non- or low-toxic or hazardous constituents (e.g., non-VOC paint), if they become available during the course of the contract.

The following language (or equivalent) may be used:

- *"The NRC and contractor may negotiate during the contract term to permit the substitution or addition of designated recycled content products (i.e., CPG),* EPEAT®*-registered products, EnergyStar®- and*

FEMP-designated energy efficient products and appliances, USDA-designated biobased products (Biopreferred® program), environmentally preferable products, WaterSense and other water efficient products, products containing non- or lower-ozone-depleting substances (i.e., SNAP), and products containing non- or low-toxic or hazardous constituents (e.g., non-VOC paint), when such products and services are readily available at a competitive cost and satisfy the NRC's performance needs."

- Include appropriate NRC clauses in contracts or orders.

3. Identifying Potential Qualified Vendors

Program offices and contracting officers are encouraged to solicit businesses that demonstrate or adopt environmentally sound policies and systems, institute proper environmental management and auditing, disclose environmental information, and conform to environmental laws and regulations.

4. Source Selection and Evaluations

FAR 11.002 states that Federal agencies shall consider maximum practicable use of energy and water-efficient, low standby power, renewable energy technology, biobased, recycled content, and environmentally preferable products and services when developing source selection factors.

When evaluating acquisitions for products and services, contracting officers must give consideration to sustainable acquisition, including source selection factors in acquisitions that may include:

- energy-efficient and water-efficient services and products (including products containing energy-efficient standby power devices) (FAR Subpart 23.2);
- products and services that use renewable energy technologies (FAR Subpart 23.2);
- products containing recovered materials (FAR Subpart 23.4);
- biobased products (FAR Subpart 23.4);
- environmentally preferable products and services, including EPEAT®-registered electronic products and non- or low-toxic alternatives (FAR Subpart 23.7); and
- non-ozone-depleting substances (FAR Subpart 23.8).

Unless an exception applies and is documented by the requiring activity, executive agencies shall, to the maximum practicable, require the use of products and services when—

- developing, reviewing, or revising Federal and military specifications, product descriptions (including commercial item descriptions), and standards;

- describing government requirements for products and services; and

- developing source-selection factors.

Some or all of the performance levels or performance specifications in a solicitation may be identified as targets rather than as fixed or minimum requirements.

5. Balancing Environmental Considerations with Performance, Availability and Cost (Life-Cycle Cost Analysis)

The NRC is encouraged to considered life-cycle cost analysis in making decisions about investments in products and services, and other projects to lower the agency's costs and to reduce energy and water consumption.

When comparing costs, CORs and COs should not focus exclusively on the initial price. Rather, they should calculate and compare total costs over the life of the item, which includes the initial cost along with maintenance, operating, insurance, disposal, replacement, safety and health, training, hazardous material management, and potential liability costs. Examining life-cycle costs can save money by ensuring the total cost of ownership is quantified before making purchasing decisions.

The NRC recognizes that competition exists in pricing, the technical competence of suppliers, in their ability to make timely deliveries, and in the quality and performance, including environmental performance, of their products and services. Balancing these sometimes competing factors means that initial cost is not the only consideration. It also means the government will sometimes pay more for higher performing goods and services, including those with superior environmental performance. Health, safety, and environmental attributes of the product throughout the entire life cycle should also be addressed in the procurement planning phase. The following attributes should be taken into consideration: extending product durability; allowing for easy disassembly, recycling, and remanufacturing; helping prevent pollution; energy efficiency and water efficiency; and resource conservation.

Reference:

- FEMP Life-Cycle Cost Analysis

E. Justifications

FAR 23.404 states that agency APP programs must require that 100 percent of purchases of EPA and USDA-designated products and items contain recovered material or biobased content. If a recycled content, biobased, or energy-efficient product (when purchasing energy-efficient items) is not purchased, a written justification providing the

basis shall be included in the contract file. The contracting officer (CO) must maintain copies of justifications in contract files.

If Not Procuring Recycled Products:

Section 6002 of EPA's RCRA and Section 9002 of USDA's FSRIA state that the decision not to procure recycled content and biobased products shall be based on a determination that such items:

1) Are not reasonably available within a reasonable period of time;
2) Fail to meet the performance standards set forth in the applicable specifications;
3) Fail to meet the reasonable performance standards of the procuring agencies; or
4) Are only available at an unreasonable price.

If Not Procuring Energy-Efficient Products:

Section 104 of the EPAct states that the decision not to procure EnergyStar®- or FEMP-designated energy-efficient products shall be based on a determination that an EnergyStar® product or FEMP-designated product is not cost effective over the life of the product, taking energy cost savings into account, or not reasonably available to meet the functional requirements of the agency.

Exemptions:

FAR 23.204 states that an agency is not required to procure an EnergyStar®- or FEMP-designated product if the head of the agency (Office of the Executive Director for Operations (EDO)) determines in writing that: 1) no EnergyStar®- or FEMP-designated product is reasonably available that meets the functional requirements of the agency or 2) no EnergyStar®- or FEMP- designated product is cost effective over the life of the product, taking energy cost savings into account.

F. Contractors

The buy-recycled requirements apply to contractors when they are purchasing or supplying EPA-designated products for use in the performance of an NRC contract. COs must include the appropriate FAR clauses or provisions and may make reference to the GPP.

Contracts will require that all contractors providing services on site at NRC facilities are required to buy "green compliant products" for their work performed on site. The supplies and materials needed to complete their work must meet biobased and recycled content requirements and be energy efficient when possible. If the contractor refuses to use a product that meets the guidelines, they must supply the NRC a justification stating why the product will not meet the requirement for which it is intended. The COR may approve this deviation in writing and keep the information in the COR's contract file with a copy to the CO for the official contract file.

V. PROMOTION PROGRAM

The NRC's Office of Administration is responsible for actively promoting this GPP and performing or facilitating outreach and training. Internal promotion may include, but is not

limited to: articles in newsletters or other references; creating a Web site on green purchasing; making vendors of recycled content products aware of this GPP and the NRC's recycling program; and educating offices about FAR Part 23 and other Federal green purchasing rules requirements.

VI. TRAINING

Training is conducted by a variety of methods, including in-house training sessions, COR seminars, online training or information materials provided by GSA, USDA, EPA or other Federal agencies, and traditional classroom-style courses provided by commercial training vendors.

In accordance with EO 13423 and EO 13514, each agency shall ensure that all personnel whose actions affected by the EOs receive initial awareness training as well as necessary refresher training on the goals of the EO and any related instructions, including the environmental impacts of the employees' actions. Therefore, all affected employees should take necessary training as approved by their immediate supervisors.

The NRC's COs and CSs are required to take annual training in green purchasing and be familiar with this GPP, including related Web sites with designated product lists. The agency will provide guidance to employees on what training constitutes meeting the annual training requirement. Cardholders are expected to be familiar with the agency's *Purchase Card Handbook* and GPP.

VII. PROCEDURES FOR ANNUAL REVIEW AND MONITORING

A. Monitoring

ADM will: (a) monitor procurement of green purchases, (b) update the agency's policies and procedures for making green purchases, (c) ensure the agency's automated acquisition system includes green clauses and provisions, (d) collect vendor-generated reporting for USDA biobased products (FAR 52.223-2), e) report purchasing of green products and services, as required, f) incorporate environmental considerations into procurement management oversight reviews, and g) ensure corrective action is taken to correct deficiencies identified in assessments, reviews, and audits.

B. Reports

Sustainability Plan – Agencies are also evaluated on how they demonstrate continuous progress towards implementing additional statutory or EO targets and goals reflected in their annual Sustainability Plans, such as fleet management and green buildings. Agency Sustainability Plans, which are required by EO 13514, are due in June of each year and are posted publicly on the OMB MAX Web site.

Resource Conservation and Recovery Act Report – Section 6002 of the Resource Conservation and Recovery Act of 1976 requires the OFPP to report to Congress biennially on the actions taken by Federal agencies and the progress made in the implementation of Section 6002. The OFPP and OFEE annually submit a data call to agencies on their purchasing of recycled content and environmentally preferable products and services. The NRC is responsible for tracking the agency's purchasing of

designated recycled content products and reporting this information to the OFPP and the OFEE.

VIII. ANNUAL RECOGNITION PROGRAMS

A. GreenGov Presidential Awards Program

The GreenGov Presidential Awards Program was developed to recognize Federal employees (civilian and military) and their facilities or installations for efforts resulting in significant positive impact on the environment, in specific categories under EO 13514. This program recognizes outstanding affirmative procurement, waste reduction, recycling, fleet management, energy reduction, electronic stewardship and sustainable design success stories that can serve as an example for other Federal employees and facilities to follow. Green purchasing is one of the categories in the Greengov Presidential Awards.

B. Other Environmental Awards

The Presidential Award for Leadership in Federal Energy Management is given to an agency team(s) that excelled in the use of energy efficiency and management tools. Winners of the Presidential Award for Leadership in Federal Energy Management are selected only from the nominations submitted by FEMP. One of the categories included in the award is implementation; this category includes the use of energy-efficiency tools such as purchasing energy-efficient products, using sustainable building design, and developing model leases (FEMP Presidential Awards).

C. Non-monetary NRC Environmental Stewardship Awards

The agency may, at its discretion, provide non-monetary awards to employees who have demonstrated exceptional leadership in planning or implementing programs that include environmental considerations and green purchasing in support of the agency's overall APP program.

IX. WASTE PREVENTION AND RECYCLING PROGRAMS

A. Waste Prevention

Each Federal agency is required to initiate a program to promote cost-effective waste prevention and recycling of reusable materials in all its facilities (including the acquisition and management of all leased space and in the construction and improvements of buildings), consistent with applicable State and local recycling requirements. The NRC will implement this mandate as follows:

- Employees must consider all waste prevention opportunities such as recyclability, reusability, and repairability when acquiring products and services.

- COs must include the provision at FAR 52.223-10, Waste Reduction Program, in all solicitations and contracts for contractor operation of government-owned or government-leased facilities, and support services at government-owned or operated facilities.

B. Recycling Programs

The NRC recycles the following items: paper, aluminum, tin and steel cans, glass and plastic bottles, cardboard, laser toner cartridges, ink jet cartridges, NiCad, lead acid and lithium batteries, newspapers and wood pallets. Unneeded supplies that are in new or nearly new condition are collected for reuse (ADM Recycling Program).

At present, there is no Federal mandate to recycle e-waste. However, some electronics (such as color cathode-ray tubes (CRTs) computer monitors, color CRT TV tubes, and smaller items such as cell phones and other "hand-helds") test "hazardous" under Federal law. If so, they are subject to special handling requirements under Federal law, subject to certain exemptions. EPA encourages reuse and recycling of used electronics, including those that test "hazardous." To facilitate more reuse and recycling of these products, EPA has less stringent management requirements for products bound for reuse and recycling (Recycling Regulations and Standards).

X. CONSERVATION MEASURES AND "BUYING GREEN"

A. Energy Efficiency in Lease Provisions

When entering into leases, including the renegotiation or extension of existing leases, the agency shall incorporate lease provisions that encourage energy and water efficiency. The NRC shall comply with the energy conservation guidelines set forth in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 436, "Federal Procurement of Energy Efficient Products," and EISA (2007), Section 435 that prohibits Federal agencies, effective December 19, 2010, from leasing buildings that have not earned an EnergyStar® label, unless exempted per EISA criteria. Also, the NRC shall ensure that all new lease contracts are in conformance with the policies prescribed in Section 101-20.107 of the Federal Property Management Regulations (41 CFR. 101-20-107).

B. Distributed Generation and Electrical Load Reduction Measures

The agency shall coordinate with utility companies to minimize overall use of electricity and manage electricity consumption during emergencies.

The EPAct of 2005 addresses energy production in the United States, including: (1) energy efficiency, (2) renewable energy, (3) oil and gas, (4) coal, (5) Tribal energy, (6) nuclear matters and security, (7) vehicles and motor fuels, including ethanol, (8) hydrogen, (9) electricity, (10) energy tax incentives, (11) hydropower and geothermal energy, and (12) climate change technology (EPAct of 2005).

Appendix A

Justification for Purchasing Other Than USDA-Designated Biobased Products

Executive Order (EO) 13423 and EO 13514 require that Federal agencies expand their waste prevention and recycling programs and implement advance procurement plan programs to procure environmentally preferable products and services. When purchasing other than a United States Department of Agriculture (USDA)-designated biobased product (with minimum biobased content) is needed: http://www.biopreferred.gov/ProductCategories.aspx.

For purchases below the micro-purchase threshold, the cardholder is required to include the basis for not buying a USDA-designated biobased product in the purchase card file or log.

For purchases over the micro-purchase threshold, the Contracting Officer's Representative (COR) and the CO must document the joint determination to purchase other than a USDA-designated biobased product.

Check the applicable justification:

___ Products are not reasonably available within a reasonable period of time.

___ Products could not meet the performance standards set forth in the applicable specifications (attach a description of the performance standards and explain why an environmentally preferable product or service or a fuel and energy-efficient product will not meet those standards).

___ Products are only available at an unreasonable price (including not cost effective over the life of the product.

Please provide supporting rationale and justification for purchasing other than a USDA-designated biobased product below:

_____ _____

COR Name/Title Date

_____ _____

Contract Specialist/CO/Title Date

Appendix B

Justification for Purchasing Other Than EPA-Designated Recycled Content Products

Executive Order (EO) 13423 and EO 13514 require that Federal agencies expand their waste prevention and recycling programs and implement Affirmative Procurement Programs to procure environmentally preferable products and services. When it is necessary to purchase other than an Environmental Protection Agency (EPA)-designated recycled content product (with minimum recovered material), go to http://www.epa.gov/epawaste/conserve/tools/cpg/products/index.htm#construct

For purchases below the micro-purchase threshold, the cardholder is required to include the basis for not buying an EPA-designated recycled content product in the purchase card file or log.

For purchases over the micro-purchase threshold, the Contracting Officer's Representative (COR) and the Contracting Officer (CO) must document the joint determination to purchase other than for not buying an EPA-designated recycled content product.

Check the applicable justification:

___ Products are not reasonably available within a reasonable period of time.

___ Products could not meet the performance standards set forth in the applicable specifications (attach a description of the performance standards and explain why an environmentally preferable product or service or a fuel or energy-efficient product will not meet those standards).

___ Products are only available at an unreasonable price (including not cost effective over the life of the product.

Please provide supporting rationale or justification for purchasing other than an EPA-designated recycled content product below:

_____ _____
COR Name/Title Date

_____ _____
Contract Specialist/CO/Title Date

Appendix C

Justification for Purchasing Other Than EnergyStar® or Federal Energy Management Program (FEMP)-Designated Energy-Efficient Products

Section 104 of the Energy Policy Act of 1992 states that the decision not to procure an EnergyStar®- or Federal Energy Management Program **(**FEMP)-designated energy-efficient product shall be based on a determination that an EnergyStar® product or FEMP-designated product is not cost effective over the life of the product taking energy cost savings into account, or not reasonably available to meet the functional requirements of the agency.

EnergyStar® products: http://www.energystar.gov/index.cfm?c=products.pr_find_es_products

FEMP-designated products:
http://www1.eere.energy.gov/femp/technologies/eep_purchasingspecs.html

For purchases below the micro-purchase threshold, the cardholder is required to include the basis for not buying an EnergyStar® or FEMP-designated energy-efficient product in the purchase card file or log.

For purchases over the micro-purchase threshold, the Contracting Officer's Representative (COR) and the Contracting Officer (CO) must document the joint determination to purchase other than for not buying an EnergyStar® or FEMP-designated energy-efficient product.

Check the applicable justification:

___ Products are not reasonably available to meet agency requirements.

___ Products are not cost effective over the life of the product, taking energy cost savings into account.

Please provide supporting rationale or justification for purchasing other than an Environmental Protection Agency-designated recycled content product below:

_____ _____
COR Name/Title Date

_____ _____
Contract Specialist/CO/Title Date

Appendix D

Federal Acquisition Regulation (FAR) Green Purchasing Requirements

The Federal Acquisition Regulation (FAR) contains the following requirements relating to green purchasing that must be considered:

- **FAR 2.101 –** Biobased product defined – Contains definitions for biobased, energy-efficient, energy-efficient standby power device, environmentally preferable, ozone-deleting substances, and recovered material (Subpart 2.1—Definitions).

- **FAR 4.302 –** Paper Products (Subpart 4.3—Paper Documents).

- **FAR 7.103(p) –** Requires Federal agency heads to prescribe procedures for— Ensuring that agency planners—

  (1) Specify needs for printing and writing paper consistent with the 30 percent postconsumer fiber minimum content standards; (2) Comply with the policy in FAR 11.002(d) about procurement of: biobased products, products containing recovered materials, environmentally preferable products and services (including EPEAT®-registered electronic products, non- or low-toxic alternatives), EnergyStar®- and FEMP-designated products, renewable energy, water-efficient products, and non-ozone-depleting products; (3) Comply with the *Guiding Principles for Federal Leadership in High-Performance and Sustainable Buildings* (*Guiding Principles*), for the design, construction, renovation, repair, or deconstruction of Federal buildings; and (4) Require contractor compliance with Federal environmental requirements, when the contractor is operating government-owned facilities or vehicles, to the same extent as the agency would be required to comply if the agency operated the facilities or vehicles (Guiding Principles MOU).

- **FAR 7.105(b)(17) –** Requires written acquisition plans to discuss all applicable environmental and energy conservation objectives associated with the acquisition (Subpart 7.1—Acquisition Plans).

- **FAR Part 10 –** Ensure maximum practicable use of recovered materials (see FAR Subpart 23.4) and promote energy conservation and efficiency.

- **FAR 11.002(d)(1) –** Requires agencies to consider maximum practicable use of energy and water, low standby power, biobased, recycled content, and environmentally preferable products and services when developing, reviewing, or revising specifications, product descriptions (including commercial item descriptions) and standards, describing government requirements for supplies and services and developing source selection factors.

  When agencies acquire products and services (as identified in FAR Part 23), various statutes and Executive Orders require consideration of sustainable acquisition (see FAR Subpart 23.1), including—

  (i) Energy-efficient and water-efficient services and products (including products containing energy-efficient standby power devices)(see Far Subpart 23.2);

(ii) Products and services that use renewable energy technologies (see FAR Subpart 23.2); (iii) Products containing recovered materials (see FAR Subpart 23.4); (iv) Biobased products (see FAR Subpart 23.4); (v) Environmentally preferable products and services, including EPEAT®-registered electronic products and non- or low-toxic alternatives (see FAR Subpart 23.7); and (vi) non-ozone-depleting substances (see FAR Subpart 23.8).

- **FAR 11.302 –** Acceptable Material

  Postconsumer material, recovered material, and postconsumer fiber defined.

  - Agencies must not require virgin material or supplies composed of or manufactured using virgin material unless compelled by law or regulation or unless virgin material is vital for safety or meeting performance requirements of the contract.

  - When acquiring other than commercial items, agencies must require offerors to identify used, reconditioned, or remanufactured supplies; or unused former government surplus property proposed for use under the contract.

  - When acquiring commercial items, the contracting officer must consider the customary practices in the industry for the item being acquired.

  - The contracting officer may require offerors to submit additional information on the recycled or biobased content or related standards. The request for the information must be included in the solicitation. When acquiring commercial items, limit the information to the maximum extent practicable to that available under normal commercial practices.

  - For biobased products, agencies may not require, as a condition of purchase of such products, the vendor or manufacturer to provide more data than would typically be provided by other business entities offering products for sale to the agency, other than data confirming the biobased content of a product (7 CFR 3201.8) (FAR Subpart 11.3—Acceptable Material)

- **FAR Part 23 –** Environment, Energy, and Water Efficiency, Renewable Energy Technologies, Occupational Safety, and Drug-Free Workplace, states that it is policy to acquire competitively, in a cost-effective manner, products that meet reasonable performance requirements and that are composed of the highest percentage of recovered materials practicable. FAR Part 23 requires that Federal agencies purchase products that are EnergyStar® labeled or meet the requirements of Federal Energy Management Program (FEMP) energy efficiency recommendations or FEMP low standby power recommendations. FAR Part 23 also states that Federal agencies must maximize the use of environmentally preferable products and services (FAR Part 23).

- **FAR Subpart 23.4** – (FAR Subpart 23.4—Use of Recovered Materials and Biobased Products)

The following FAR Part 52 clauses and provisions apply to green purchasing and shall be inserted in solicitations and contracts, as appropriate:

- as prescribed in FAR 4.303, insert the following clause: FAR 52.204-4 – "Printed or Copied Double-Sided Postconsumer Fiber Paper"
- as prescribed in 11.107(a), insert the following provision: FAR 52.211-5 – "Material Brand Name or Equal"
- as prescribed in FAR 23.406(a), insert the following provision: FAR 52.223-1 – "Biobased Product Certification"
- as prescribed in FAR 23.406(b), insert the following clause: FAR 52.223-2 – "Affirmative Procurement of Biobased Products Under Service and Construction Contracts"
- as prescribed in FAR 23.303, insert the following clause: FAR 52.223-3 – "Hazardous Material Identification and Material Safety Data"
- as prescribed in FAR 23.406(c), insert the following provision: FAR 52.223-4 – "Recovered Material Certification"
- as prescribed in FAR 23.1005, insert the following clause: FAR 52.223-5 – "Pollution Prevention and Right-to-Know Information"
- as prescribed in FAR 23.602, insert the following clause: FAR 52.223-7 – "Notice of Radioactive Materials"
- as prescribed in FAR 23.406(d), insert the following clause: FAR 52.223-9 – "Estimate of Percentage of Recovered Material Content for EPA-Designated Items"
- as prescribed in FAR 23.705(a), insert the following clause in solicitations and contracts: FAR 52.223-10 – "Waste Reduction Program"
- as prescribed in FAR 23.804(a), insert the following clause in solicitations and contracts: FAR 52.223-11 – "Ozone-Depleting Substances"
- as prescribed in FAR 23.804(b), insert the following clause in solicitations and contracts: FAR 52.223-12 – "Refrigeration Equipment and Air Conditioners"
- as prescribed in FAR 23.206, insert the following clause in solicitations and contracts: FAR 52.223-15 – "Energy Efficiency in Energy-Consuming Products"
- as prescribed in FAR 23.705(b)(1), insert the following clause in solicitations and contracts: FAR 52.223-16 – "IEEE 1680 Standard for the Environmental Assessment of Personal Computer Products"
- as prescribed in FAR 23.406(e), insert the following clause: FAR 52.223-17 – "Affirmative Procurement of EPA-designated Items in Service and Construction Contracts"

- as prescribed in FAR 23.903, insert the following clause: FAR 52.223-19 – “Compliance with Environmental Management Systems”

Appendix E

Procedures for Vendor Estimation, Certification, and Verification

The Environmental Protection Agency (EPA) recommends that procuring agencies require vendors to provide an estimate of the total recycled content of their products and certify that the recycled content meets the minimum content standards in the agency's solicitation documents. EPA also recommends that agencies establish procedures to verify vendor estimates and certifications. Agencies should verify these estimates and certifications through their normal quality control assurance procedures.

Estimation

Contracting officers (COs) shall insert the clause at FAR 52.223-9, "Estimate of Percentage of Recovered Material Content for EPA-Designated Products," in solicitations and contracts exceeding the simplified acquisition threshold that include the provision at FAR 52.223-4, "Recovered Material Certification." Minimum content standards for designated items shall be specified in the statement of work and vendors responding to solicitations containing EPA-designated products must meet the minimum content standards by the end of contract performance. Contractual data reporting shall be specified in accordance with FAR 52.223-5, "Pollution Prevention and Right-to-Know Information."

Certification

COs must ensure that vendors provide written certification in their Online Representations and Certifications (ORCA). Currently, the Federal Acquisition Regulation (FAR) contains a "Recovered Material Certification" provision (FAR 52.223-4), which COs shall insert into solicitations for recycled content products and into solicitations that will require the use of EPA-designated products during performance of the contract. This "Recovered Material Certification" provision shall be placed in an ORCA. The provision is as follows: "The offeror certifies, by signing this offer, that recovered materials, as defined in FAR 23.402, will be used as required by the applicable specifications."

Verification

The Division of Contracts will periodically review vendor certification documents and information as part of the annual review and monitoring process. Such reviews shall enable the NRC to verify the contractors' compliance with Executive Order (EO) 13423 and EO 13514.

Exclusions

Federal supply sources, such as the General Services Administration, Government Printing Office, and Defense General Supply Center, have established their own estimation, certification, and verification procedures for EPA-designated products. Therefore, program offices procuring EPA-designated products through these supply sources are not required to conduct independent estimation, certification, and verification.

Appendix F

Federal Sources of Recycled Content and Environmentally Preferable Products

Thousands of recycled content and environmentally preferable products are available to procuring agencies and their contractors through established Federal supply sources, and new items are continuously being added. Federal sources of Environmental Protection Agency (EPA)-designated products, and other recycled content and environmentally preferable products, are listed below.

GSA Federal Supply Service

General Services Administration (GSA) produces several publications, as indicated below, to assist customers in identifying and requisitioning products.

GSA Federal Supply Service (FSS) Publications

Publication	Description
GSA Supply Catalog	Contains information on thousands of products available through the FSS, including hundreds of recycled content and environmentally preferable products (highlighted in green for easy identification). Includes information on requisitioning these products through GSA.
Environmental Products and Services Guide	A separate listing of hundreds of recycled content and environmentally preferable products.
Customer Assistance Guide	A detailed introduction to the FSS. Also contains complete listings of regional customer service directors, customer supply centers, and commodity centers.
Marketips	A bimonthly bulletin frequently containing information about new recycled content and environmentally preferable products being introduced. Includes customer training seminars scheduled through GSA's regional offices.

In addition, GSA provides "GSA Advantage!," an online shopping mall that offers the convenience of purchasing more than one million products and services, including recycled content and environmentally preferable products, to Federal employees with the click of a button. www.gsaadvantage.gov

Retread Tires

The Defense Logistics Agency (DLA) Defense Supply Center Columbus manages the retread tires program. The Cooperative Tire Qualification Program (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 Approval Tire List is published for government use; it lists all the qualified manufacturers' brand names, tread class, and codes by

tire group. It can be viewed at
http://www.landandmaritime.dla.mil/programs/tirecatalog/pdfs/CATL_1922.pdf

Government Printing Office

A variety of recycled content printing and writing papers are available through the Government Printing Office (GPO). Requirements officials and program officials should work through their agency field printing organizations to request recycled paper for publications produced through GPO.

http://www.gpo.gov/
http://www.gpo.gov/customers/store.htm

UNICOR (FAR 8.6) – Federal Prison Industries, Inc., also referred to as UNICOR, is a self-supporting, wholly-owned Government corporation of the District of Columbia that provides training and employment for prisoners through the sale of supplies and services to government agencies. UNICOR provides everything from computer furniture, circuit board assemblies, and computer demanufacturing to exterior signage, toner cartridges, environmental testing, textiles, printing and laundry services: http://www.unicor.gov

AbilityOne (FAR 8.7) – AbilityOne creates jobs and training opportunities for people who are blind or who have other severe disabilities, empowering them to lead more productive and independent lives. Its primary means of doing so is by requiring government agencies to purchase selected products and services from nonprofit organizations employing such individuals: https://www.acquisition.gov/far/current/html/Subpart%208_6.html

Defense Logistics Agency (DLA) – DLA Aviation's Hazardous Minimization (HAZMIN) and Green Products Program was established at Richmond, VA to support the Department of Defense's (DoD's) overall sustainability policy issued in 2010. DoD defines sustainability as "the capacity to continue the mission without compromise. It is the ability to operate into the future without decline – either in the mission or the natural and manmade systems that support it." The DLA HAZMIN and Green Products team under the Aviation Supply Chain's Engineering Directorate has the mission to support DoD's Sustainability Policy by helping DLA's military customers to "Buy Green." The team provides technical assistance and logistics guidance to its military service customers with respect to pollution prevention programs, green products, and overall sustainability issues.

Examples include:

- recycled content products
- non- or low-toxic alternatives (non-VOC products)
- energy and water-conserving products
- biobased products
- alternatives to hazardous items such as lead, mercury, and cadmium

The DLA has hundreds of environmental products in its supply system ranging from citrus-based degreasers to natural conservation products. Examples of green products by DLA category include petroleum, oils, and lubricants; remanufactured and recycled laser printer toner cartridges; reusable batteries and battery accessories; aircraft cleaning compounds; recycled lumber products; natural conservation products. More information on these is available at

http://www.aviation.dla.mil/ and
http://www.aviation.dla.mil/userweb/dscrld/epa/epcontractorinfo.htm#

Biobased Products Information – Go to
http://biobasedproducts.com/info/
http://www.biopreferred.gov/?SMSESSION=NO

Appendix G

Environmental Labeling and Certification Programs

In addition to reviewing Environmentally Preferable Purchasing (EPP) products through the Environmental Protection Agency's (EPA's) *Comprehensive Procurement Guidelines* (CPG) (http://www.epa.gov/epawaste/conserve/tools/cpg/index.htm), there are various certification programs and environmental labeling to review EPP products, as follows:

Certified Wood – "Certified wood" is a relatively new option for construction Project Managers. There are no legal requirements for its use, but sustainably grown and harvested wood is considered an environmentally preferable product that would be encouraged for purchase. Construction projects seeking a LEED™ (Leadership in Energy and Environmental Design) Green Building System rating (http://www.usgbc.org/DisplayPage.aspx?CMSPageID=222) can get credit for using wood products certified by the Forest Stewardship Council (FSC). The two best-known certification systems for wood products in the United States are the FSC program (http://www.fsc.org/index.htm) (http://www.fsc.org/controlled-wood.40.htm) and the Sustainable Forestry Initiative (SFI) (http://www.sfiprogram.org/). Each program has its own standards and certification processes. Neither system is preferred or endorsed by EPA or any other Federal agency.

Consumers Union – GreenerChoices.org | Eco-labels center. Evaluates the growing number of environmental labels against objective criteria to measure the validity of the label and the independence of the standard setting and certification organizations that are developing them.

EnerGuide – http://oee.nrcan.gc.ca/energuide/ – Establishes energy efficiency guidelines for hundreds of consumer products.

Environmental Choice – www.environmentalchoice.com – Establishes environmental standards and awards its eco-label to products meeting its standards; it currently has more than 20 standards and hundreds of certified products.

Forest Stewardship Certification (FSC) – Sets standards for "forest friendly" practices and, through independent verifiers, certifies forests that are managed consistent with its standards. Forest-based products that originate from FSC-certified forests are also eligible for FSC certification: http://www.fsc.org/index.htm.

Forest Stewardship Council Certified Products – FSC-certified products: http://www.fsc.org/choose-fsc.195.htm.

The GREENGUARD Environmental Institute – The GREENGUARD Environmental Institute is an independent, non-profit organization that oversees the GREENGUARD Certification Program, including the establishment of acceptable standards for indoor products and testing protocols. The Institute's goal is to improve public health and quality of life by helping manufacturers build better and safer products. GREENGUARD has been accredited as an American National Standards Institute Standards Developer and will submit the GREENGUARD Certification Standards for Low Emitting Products to be approved by a consensus body and documented as American National Standards.

GREENGUARD develops standards for all facets of indoor air quality including indoor source emissions, indoor pollutant standards, microbial resistance performance, building construction

and operations, as well as standards for source emission for vehicles and aircraft: (www.greenguard.org) GREENGUARD Product Guide™ - http://www.greenguard.org/en/QuickSearch.aspx.

Green Seal – Establishes environmental standards and awards its "green seal of approval" to products meeting its standards. Green Seal has created environmental standards for more than 30 product categories and regularly publishes its *Choose Green Reports*, which evaluates the environmental impact of products and recommends products that appear to meet its standards: www.greenseal.org.

PowerSmart – Identifies energy-efficient products and strategies to reduce energy consumption: www.bchydro.com.

Scientific Certification Systems – Provides independent verification of environmental claims: www.scscertified.com.

Sustainable Forest Initiative (SFI) Program – SFI was adopted in 1994 by the American Forest and Paper Association, a national trade association for the forest, paper, and wood products industries. The program's focus is on improving the forestry practices of the U.S. industry and on promoting sustainable forestry among U.S. landowners. Accreditation is by third-party auditors. Annual surveillance audits are required for anyone using their on-product label. http://www.sfiprogram.org/

For additional labeling and certification information, refer to the following Web sites:

http://www.epa.gov

http://www.abilityone.org/

http://www.energystar.gov/

http://www.epa.gov/pesticides/regulating/labels/product-labels.htm

http://www.epa.gov/EPA-AIR/2005/December/Day-08/a23714.htm.

Appendix H

Sample Custodial Contract Green Language for USDA-Biobased Products

The United States Department of Agriculture provides sample templates for biobased products available on its Web site to assist other Federal agencies at: http://www.dm.usda.gov/procurement/programs/biobased/contracttemplates.htm.

Contract Templates for Biobased Products:

- **Custodial Services**

  This is a sample template for "Custodial Services" that incorporates language on the purchasing of biobased products. It provides contracting language for Section C "Statement of Work (SOW)," Section L "Instructions to Offerors," and Section M "Evaluation Factors for Award," in a custodial contract using biobased products. The template is provided for informational purposes. It may be revised to reflect additional or unique tasks peculiar to an activity's custodial operation. (see Web sites: HTML | PDF | Word).

  Note: The examples provided below at Sections H.1 through H.3 have been slightly modified from the original template language provided by USDA.

- **Maintenance and Repair**

  This is a sample SOW that incorporates language on the purchasing of biobased products. The SOW is provided for informational purposes. It may be revised to reflect additional or unique tasks peculiar to services for carpentry and masonry - floors, tiles, carpet, baseboards, walls, ceilings, trim, doors, stairs, shades, cabinets, shutters, molding, roofing, gutters, sidewalks, patios, windows, screen and signs (see Web sites: HTML | PDF | Word).

- **Vehicle Maintenance**

  This is a sample SOW that incorporates language on the purchasing of biobased products. The SOW is provided for informational purposes. It may be revised to reflect additional or unique tasks peculiar to an activity's vehicle maintenance operation (see Web sites: HTML | PDF | Word).

Appendix H.1

"Sample" Statement of Work (SOW) with Biobased Language

This is a sample statement of work that incorporates language on the purchasing of biobased products. The statement of work is provided for informational purposes. It may be revised to reflect additional or unique tasks peculiar to an agency's custodial operation.

Background

Congress passed a law to encourage the purchase of biobased products: the Farm Security and Rural Investment Act, Section 9002. Federal agencies must purchase designated biobased products and shall establish agency preferential procurement programs for such products. Benefits of biobased products are to: enhance the nation's energy security by substituting domestically produced biobased products for fossil fuel based products derived from imported oil and natural gas; improve demands for biobased products to increase demand for agricultural commodities, which are the feedstock of biobased products; spur the development of value added agricultural processing and manufacturing in rural communities, which would create new jobs and income in rural regions; and establish a healthier environment for users.

Supplies, Materials, and Equipment to be Provided by the Contractor

Unless otherwise specified herein, the contractor shall furnish all supplies, materials, and equipment necessary for the performance of work under this contract. All supplies and materials shall be of a type and quality that conform to applicable Federal specifications and standards. All supplies, materials, and equipment to be used in the performance of work described herein are subject to the approval of the Contracting Officer's Representative (COR).

The contractor must submit to the COR a list of products to be use d in the performance of its work. The contractor shall not use any materials, chemicals, or compounds that the COR determines to be unsuitable to perform the required work. The contractor shall use products and material made from biobased materials (e.g., biobased cleaners, biobased degreasers, biobased laundry detergent) to the maximum extent possible. For the biobased content products evaluation, products proposed for use under this contract must conform to the U.S. Department of Agriculture's *Designated Biobased Products List*. If requested in the contract, contractors shall provide data for their biobased solvents and cleaners to document the level of biobased content. Any biobased product that the COR suspects does not meet U.S. Nuclear Regulatory Commission (NRC) specifications or standards shall be tested at the contractor's expense by an independent laboratory qualified to perform such tests. A copy of the laboratory report of findings shall be submitted to the COR. These products shall meet the requirements established by applicable Federal specifications and standards or be considered unacceptable for use.

Biobased Products To Be Provided by the Contractor

The following is a list of products the NRC requires for custodial purposes. Each product submitted must be identified with one of these categories. Vendors should be able to supply the greatest feasible number of biobased products meeting health and environmental specifications. Labeling should be printed on all containers.

General purpose cleaner	Degreaser/cleaner
Heavy duty cleaner	Deodorizer

Carpet shampoo	Floor finish
Adhesive and Mastic Removers	Floor finish restorer
Disinfectant sanitizer	Floor sealer
Extraction fluid	Furniture polish
Floor stripper	Glass cleaner
Neutral cleaner (liquid)	Grout sealer
Spot and stain remover	Lime and scale remover (tub and tile cleaner)
Air freshener including dispenser	Liquid hand soap including dispenser
Bathroom cleaner	Stainless steel polish
Brass polish/cleaner	Toilet bowl cleaner
Chrome polish/cleaner	White board cleaner
Cream cleaner	Wood floor cleaner
Solvent spotter	Laundry detergent

More information on these products is available at:
http://www.biopreferred.gov/ProductCategories.aspx

In addition, trash bags must contain at least 20 percent recycled post-consumer recycled material of which at least 5 percent is household post-consumer recycled material. Products that do not meet the mandatory specifications or for which the appropriate information has not been submitted will be disqualified from further consideration. See:
http://www.ecologo.org/common/assets/criterias/CCD-126.pdf

Required Submittals and Reports

All offerors shall submit with their initial proposal a complete list of products that are to be used in carrying out the requirements of the contract. Additionally, the winning contractor on each anniversary date of the contract shall submit a complete list of products purchased to carry out the contract requirements. The products list shall be organized into the following categories: designated biobased products, non-designated biobased products, and all other “green” products (e.g., recycled content products, energy- and water-efficient products, products using renewable energy, and alternatives to hazardous or toxic chemicals). The offeror shall list the volume to be used and total cost for each individual product in each category. This information will be used for reporting purposes and to determine the reasonableness of cost.

Once a biobased item is designated as part of the existing contract, the contractor may use the remainder of the biobased products that was originally purchased to carry out the requirements of the contract. Once the product has been completely consumed, the contractor shall replace that product with a product that meets the requirements and specifications of the designated Item. The Contracting Officer (CO) must inform the contractor and COR when an item has been designated. Additionally, the contractor will provide supporting documentation if there is an upward cost impact so that contract pricing can be adjusted accordingly. Likewise, the contract will be adjusted downward if so warranted. To the greatest extent feasible, the contractor shall also use biobased products.

a. Cleaning Operations and Stewardship Plan. This plan must be reviewed and updated annually, and as required by the CO. The plan must contain and define the following elements:

1) The contractor's written policy stating its commitment to the use of biobased products, employee health and safety, and sound environmental management practices;

2) Proposed biobased cleaning-products that must be selected in accordance with the criteria included in this solicitation. At a minimum, the plan must identify products by brand name for each of the above product types;

NOTE: Contractors may propose more than one product within a designated item and propose a product or products addressing more than one designated item.

3) Once this list of products has been approved by the CO, the contractor is responsible for using only those approved cleaning chemical products in the building. If, for some reason, the product is found later to be ineffective, or the contractor would otherwise like to propose an alternative product, either the contractor or CO may propose for consideration an "equal" product. The CO is the final decisionmaker for such substitutions and must approve each in writing;

4) Product use and cleaning guides that define standard operating procedures for instructing staff in the following areas: the proper use, storage, and disposal of cleaning products; proper cleaning procedures; proper operation of equipment; and other procedures and instructions to accomplish work under this contract; and

5) The contractor shall define proper procedures for the storage of hazardous materials in conformance with good housekeeping practices, the National Fire Prevention Association Code, and applicable Federal and municipal regulations. The plan also must define proper procedures for the identification and disposal of hazardous wastes in accordance with Federal Resource Conservation and Recovery Act regulations and the District of Columbia Municipal Regulations, Title 20, Subpart E before use with personnel.

b. Green Purchasing Plan. The contractor must implement the requirements of the NRC's Green Purchasing Plan for the purchasing of biobased products to the maximum extent possible. The contractor shall detail how they intend to keep abreast of the development and increasing availability of biobased products and how any new or improved products will be incorporated on an ongoing basis into contract performance.

Product Demonstration, Employee Training and Technical Assistance

The NRC believes that a demonstration of how to use the products, an effective training program for the products selected, and technical assistance are central to the selection and eventual success of purchasing and using designated biobased products. The NRC will look for vendors who will: 1) demonstrate their products; and 2) when selected, offer effective training to all of our custodial staff and be available with technical assistance to troubleshoot problems.

Quality Control Program

The contractor shall institute a complete quality control program to ensure that the products required by this contract are supplied or used, as specified. The overall goal of the program should be to identify and correct any problems that may exist before they are identified by or

reported to the COR and the building-management staff. As a minimum, the program shall include:

a. An inspection system covering all the services required with a comprehensive checklist to be used to inspect contract performance during scheduled and unscheduled inspections, and the name(s) of the individuals who will be performing the inspections.

b. A system for identifying and correcting deficiencies and a pattern of deficiencies in the quality or quantity of services provided before the level of performance becomes unacceptable and government inspectors point out the deficiencies.

c. A file of all inspections conducted by the contractor and corrective actions taken. This should include followup inspections to ensure that corrective action was appropriate, complete, and timely. This documentation shall be organized in a logical manner, kept current, and made available to the COR and the CO during the term of the contract.

Appendix H.2

"Sample" Section L, Instructions to Offerors for Purchase of Biobased Products

Sample Section L – Instructions to Offerors

This is a sample Section L that incorporates language on the purchasing and use of biobased products. This is provided for informational purposes only. It may be revised to reflect additional or other instructions peculiar to an agency's operation.

In the technical proposal, the offeror shall identify the biobased products to be purchased and used under this contract. For each biobased product, the offeror shall specify the percentage of biobased content, and for the U.S. Department of Agriculture (USDA)-designated biobased content products, the offeror shall demonstrate that the products to be used under this contract will contain the percentage specified in the USDA recommendations or the highest level of biobased material practicable, consistent with USDA's recommended percentages of biobased content.

The offeror shall document prior experience in specifying, purchasing, using, and installing biobased products. The offeror shall provide a list for all relevant contracts over the past two years involving the specification, purchase, and use of biobased products. The offeror shall include a list of the biobased products specified, purchased, used, and installed.

The following is sample language that may be used for Section L of solicitations (RFPs), as modified appropriately to suit the user's unique needs and requirements:

Item 1: Proposed Technical Approach towards Cleaning Projects using Biobased Products (see Section M.1)

The government will evaluate the offeror's proposal based on the degree to which the offeror demonstrates the acquisition, installation, and commitment to use biobased products in this cleaning effort. Offerors with the most aggressive but realistic approaches to cleaning with biobased products will receive additional point consideration.

Item 2: Experience using Biobased Products in Cleaning Projects (see Section M.2)

The government will evaluate the degree of the offeror's demonstrated experience in the use of biobased products in cleaning over the last two years from the date of solicitation issuance. Offerors with greater quantities and uniqueness in the use of biobased products will receive additional point consideration.

The government will evaluate the offeror's past biobased project management experience in the following areas: contracts performed using biobased products, dollar amount, and formal and informal communications methods used to share information and data about biobased products between team members and between organizational entities (e.g., manufacturers, suppliers, and other vendors or subcontractors).

Item 3: Past Performance and Customer Satisfaction (see Section M.3)

The government will evaluate the offeror's past performance and customer satisfaction with biobased cleaning products. Offerors demonstrating exceptional past performance and customer satisfaction with an emphasis on "biobased practices" will receive additional point consideration.

a. **Past Performance** (see Section M.3.a)

Offerors shall provide 5 to 10 examples of "relevant" past performance over the last two years from the date of solicitation issuance. The past performance examples must be similar in scope and size to this requirement.

b. **Customer Satisfaction** (see Section M.3.b)

Offerors shall submit at least three references related to their past performance submissions and examples provided for this solicitation. Offerors shall provide the following contact information: name of contract, vendor name, address, phone number, email address, and contract number.

NOTE: Offerors with no relevant past performance will receive a "neutral" rating for past performance so their proposal will not be advantaged or disadvantaged in accordance with the Federal Acquisition Regulation. In the context of this solicitation, if an offeror does not have any relevant past performance, then the section will not be scored and the points deducted from the total possible technical points of 100 (i.e., 100 points minus 15 points, totaling a maximum possible technical evaluation score of 85 points).

Item 4: Management Approach (see Section M.4)

Offerors shall submit a management plan (not to exceed 20 pages) that describes in detail how they intend to carry out the requirements set forth in the Statement of Work, with a particular emphasis on the use of biobased products and environmentally friendly solutions, approaches, methods, and techniques.

Item 5: Cost/Price/Business Management Proposal (see Section M.5)

Offerors must provide cost and pricing information for each product and service with supporting documentation such as copies of invoices, catalogues, receipts, supplier and vendor quotations, etc. Offerors must provide a narrative section explaining all proposed costs to ensure that such costs and prices are fair and reasonable to the government.

Cost and Price Proposal information must include a sufficient level of breakdown and show all calculations in an Excel spreadsheet format provided on a compact disc to allow for and facilitate the government review and understanding.

Appendix H.2.1

"Sample" Sustainability Plan, Clause and Provision

Section L Instructions to Offerors

Environmental Sustainability Plan *(*for Contracting Officer (CO) review of plans*)*

a. Offerors shall submit the following information as part of their business proposal:

A description of current environmental sustainability practices and procedures, and a plan describing the further steps they will take to reduce their greenhouse gas emissions, water use, toxic waste release, release of ozone-depleting substances, as well as efforts to reduce, reuse, and recycle paper and other materials purchased should they be awarded the contract.

The Environmental Sustainability Plan will be reviewed as part of the source selection process and will be a factor in the award decision. The CO will assess the plans submitted, may address the plans during negotiation, and will determine an adjectival description for each offeror's plan as follows: Excellent, Good, Fair, and Poor. This adjectival description will be used along with price, technical merit, and past performance in making the award decision.

Environmental Sustainability Plan *(for Peer Reviewer review of plans)*

a. Offerors shall submit the following information as part of their technical proposal:

A description of current environmental sustainability practices and procedures, and a plan describing the further steps they will take to reduce their greenhouse gas emissions, water use, toxic waste release, release of ozone-depleting substances, as well as efforts to reduce, reuse, and recycle paper and other materials purchased should they be awarded the contract.

The Environmental Sustainability Plan will be reviewed during the Source Evaluation Panel (SEP) review of the proposal. Sustainability practices have been incorporated into the evaluation criteria and offerors' technical score can increase or decrease depending on the quality of their Environmental Sustainability Plan.

Sustainability Plan

Environmental Sustainability Program

(a) To establish an integrated strategy towards sustainability and to make reduction of greenhouse gas emissions a priority for all and, in accordance with Executive Order (EO) 13514, the contractor shall:

(1) Develop and implement environmental sustainability procedures and practices for personnel and facilities.

(2) Implement the Environmental Sustainability Plan, which is incorporated in Section J of the contract.

(3) Comply with all Federal, State and local laws and regulations about environmental sustainability applicable to the work being performed under this contract.

(b) The Environmental Sustainability Plan should address all sustainability practices to include:

(i) maintaining cost effective waste prevention and recycling programs in its facilities

(ii) reducing or eliminating acquisition and use of toxic or hazardous chemicals

(iii) implementing integrated pest management and other appropriate landscape management practices

(iv) diverting organic materials from the waste stream through composting

(v) increasing use of acceptable alternative chemicals (such as biodegradable soaps, cleaners, etc.)

(vi) electronics recycling

(vii) managing electronic and information technology to minimize energy, toner, and paper usage

(viii) reducing potable water use

(ix) reducing energy use increasing the portion of energy derived from sustainable sources

(x) implementing strategies and accommodations for transit, travel, training, and conferencing that actively support lower-carbon commuting and travel by contractor staff

(c) EO 13514 requires the General Services Administration (GSA) to look into various options for tracking vendor and contractor greenhouse gas emissions, such as tracking through a voluntary registry or a government tracking system. Vendors and contractors who commit in their Environmental Sustainability Plan to measure, report, and reduce their greenhouse gas emissions through the mechanism selected by GSA will be more likely to receive the highest ranking under the source selection criteria. The Environmental Sustainability Plan does not have to follow the numbering system outlined above.

Appendix H.3

"Sample" Section M – Evaluation Information

GENERAL

Selection of an offeror for contract award will be based on an evaluation of proposals against four factors. The factors in order of importance are: technical, cost, sustainability and past performance. Although technical factors are of paramount consideration in the award of the contract, sustainability, past performance, and cost and price are also important to the overall contract award decision. All evaluation factors other than cost or price, when combined, are significantly more important than cost. The government intends to make an award(s) to that offeror whose proposal provides the best overall value to the government.

The evaluation will be based on the demonstrated capabilities of the prospective contractors in relation to the needs of the project as set forth in the solicitation. The merits of each proposal will be evaluated carefully. Each proposal must document the feasibility of successful implementation of the requirements of the solicitation. Offerors must submit information sufficient to evaluate their proposals based on the detailed criteria listed below.

SUSTAINABILITY FACTOR

The offeror's Environmental Sustainability Plan will be evaluated subsequent to the technical evaluation. However, this evaluation will not be conducted on any offeror whose proposal is determined to be technically unacceptable. The evaluation will be based on the information provided in the plan submitted as part of the proposal and may also consider information provided elsewhere in the technical or business proposal. The plan may be revised based on negotiation. The final plan will be incorporated into the contract.

The Contracting Officer will assign an adjectival descriptor to the Environmental Sustainability Plan. Each offeror's plan will be determined to be Excellent, Good, Fair, or Poor. The lack of an Environmental Sustainability Plan will result in a Poor rating for that factor and reduce the likelihood that such an offeror will be selected for an award. If such an offeror is selected, an Environmental Sustainability Plan will be negotiated before an award.

The following guide is not controlling on the government in making a determination of the descriptor that is to be assigned to an offeror for their sustainability factor, but is presented to give the offeror a sense of what each descriptor means.

Descriptor	Proposal Qualities
Excellent	An excellent plan documents compliance with relevant environmental laws and regulations, existing further steps such as implementing strategies and accommodations for transit, travel, training, and conferencing that actively support lower-carbon commuting and travel, "green teams" to promote more sustainable practices, and investing in more efficient equipment or weatherization of facilities. Further, it commits the offeror to measure, report, and reduce greenhouse gases in the system to be identified by General Services Administration, to reduce other resource usage, and demonstrates that the organization is striving to reduce its impact on the natural systems that support us.

Good	A good plan documents compliance with relevant environmental laws and regulations and commits the organization to more aggressive actions such as promoting telework where feasible, operating “green teams” to promote more sustainable practices, and investing in more efficient equipment or weatherization of facilities.
Fair	A fair plan documents existing programs that meet relevant environmental laws and regulations and proposes modest further steps.
Poor	A poor plan merely states that the offeror will comply with relevant environmental laws and regulations, or describes programs that merely comply with relevant laws. If the offeror does not submit a plan this also counts as poor.

Appendix H.3.1

"Sample" Section M, Evaluation Factors for Award for Purchase of Biobased Products

Sample Section M – Evaluation Factors for Award

This is a sample Section M that incorporates evaluation factors that include the offeror's technical and management approach, cost, and past performance associated with biobased products. This is provided for informational purposes only. It may be revised to reflect additional or other factors peculiar to an agency's operation.

The major evaluation factors for this solicitation include technical, management, cost, and past performance. Offerors are advised that award will be made to the offeror whose proposal provides the best overall value to the government.

The evaluation will be based on the demonstrated capabilities of the prospective contractors in relation to the requirements of the work.

M.1 Technical Approach towards Cleaning with Biobased Products (25 points)

The government will evaluate the offeror's technical approach for fulfilling the cleaning services, with an emphasis on the following elements:

a. Identification of all biobased products to be acquired, used, and installed in the performance of the project (15 points).

b. The offeror's proposed use and installation of biobased products (10 points).

M.2 Experience using Biobased Products in Cleaning Projects (25 points)

The government will evaluate the offeror's demonstrated experience using biobased products.

M.3 Past Performance and Customer Satisfaction (25 points)

a. The government will evaluate the offeror's past performance in the successful completion of similar work either for the government or other clients. The government will place special emphasis on the contractor's past performance in the acquisition, use, installation, and commitment to biobased products in the performance of cleaning projects. The government will evaluate the offeror's client satisfaction with its cleaning practices (15 points).

b. The government will evaluate customer satisfaction based upon the degree to which the offeror provided quality service to its clients (10 points).

M.4 Management Approach (25 points)

The government will evaluate the overall quality and reasonableness of the offeror's management plan to use biobased products and environmentally friendly solutions, approaches, methods, and techniques.

M.5 Cost/Price/Business Management Proposal *(No point value assigned)*

The government will evaluate the offeror's cost/price/business management proposal as part of its overall Best Value Determination and will not apply points to this section of the offeror's proposal. The government will evaluate the realism of proposed prices in meeting solicitation requirements.

Appendix I

Sample Green Contract Language for Construction and Electronic and Information Technology (EIT) Products

The Department of Energy has provided sample green language for construction and EIT products to assist other Federal agencies at: http://www1.eere.energy.gov/femp/technologies/eep_modellang.html.

Appendix J

Resources

Agency for Toxic Substances and Disease Registry) – Hazardous substances listing: http://www.atsdr.cdc.gov/.

Alternative Fuels Data Center (AFDC) – The AFDC is a comprehensive resource for alternative fuel and vehicle information needs: http://www.eere.energy.gov/afdc/.

Alternative Fuel Vehicles – Information can be found at: http://www.fueleconomy.gov/.

Biobased Contract Templates – The U.S. Department of Agriculture has developed sample biobased language for contract templates available at: http://www.usda.gov/procurement/programs/biobased/contracttemplates.htm.

Biobased Manufacturers Association – Look for the "Biobased Supercenter" information at: http://www.biobased.com/.

Biopreferred® Program – The procurement of biobased products is established in Section 9002 of Farm Security and Rural Investment Act of 2002 (FSRIA) and Executive Order (EO) 13423. Go to: www.biopreferred.gov/.

Building for Environmental and Economic Sustainability (BEES) – BEES is a tool that helps in the selection of building materials, which take into account environmental and economic considerations. This software program is available free of charge on compact disc from the Pollution Prevention Information Clearinghouse at 202-566-0799, or as a free download from the National Institute of Standards and Technology's Building and Fire Research Laboratory website at: http://www.bfrl.nist.gov/oae/software/bees/.

Central Contractor Registration – A database at http://www.ccr.gov can be used to locate small businesses that provide green products. On the main Web site, choose the link to "Dynamic Small Business Search," then search for "Buy Green NAICS codes."

Cleaning Product Attributes Ranking Tool – An interactive tool, which helps the user choose a greener cleaning product by prioritizing environmental attributes (e.g., skin irritation potential, Volatile Organic Compounds, recycled packaging). Go to: http://www.epa.gov/epp/index.htm.

Consumer's Choice Council – An association of environmental, consumer, and human rights groups from 25 countries that supports ecolabeling and seeks to ensure that consumers have the information they need to purchase greener, more socially just products. See: http://www.celb.org/xp/CELB/partners/org/consumerschoice.xml.

Defense Energy Support Center (DESC) – DESC supplies Federal agencies with alternative fuels, including biodiesel (B20) and ethanol (E85). More information is available at: http://www.desc.dla.mil/DCM/DCMPage.asp?PageID=591.

Department of Energy (DOE) Biomass Program – DOE's Biomass Program develops technology for conversion of biomass (plant-derived material) to fuels, chemicals, materials, and power, so as to reduce dependence on foreign oil and foster growth of biorefineries. Today's

biomass uses include ethanol, biodiesel, biomass power, and industrial process energy. See: http://www1.eere.energy.gov/biomass/.

Environmental Protection Agency (EPA) and DOE Fuel Economy Web Site – The Fuel Economy Guide and other tools for finding fuel-efficient, environmentally preferable vehicles are available at: http://www.epa.gov/greenvehicles/Index.do;jsessionid=8230dc59c6072012566d. Users can find and compare cars by gas mileage, greenhouse gas emissions, air pollution ratings, and safety information. The site also provides information about gas mileage tips, gas prices, advanced technology, and the importance of fuel economy.

EPA's *Green Vehicle Guide* – EPA's guide is a tool for choosing the cleanest and most fuel-efficient vehicle that meets user's needs. This guide provides information about the environmental performance of vehicles based on emissions levels, air pollution, fuel economy values, and global warming impacts. It does not account for other environmental factors, such as recyclability of the vehicle, or other consumer preferences such as safety, cost, or driving performance. Users of the guide can look up ratings for specific vehicles, or view a list of the ratings for all current year vehicles. Go to: http://www.epa.gov/greenvehicles/Index.do.

Defense Logistics Agency – Visit either: http://www.dlis.dla.mil/green/ or http://www.dscr.dla.mil/catalogs/catalog.htm.

Department of Defense (DoD) EMALL – The DoD EMALL allows DoD and other Federal customers to find and acquire off-the-shelf, finished goods and items from the commercial marketplace. The DoD EMALL offers cross-catalog shopping for the purpose of comparison pricing and best value decisionmaking. It can be found at: http://www.defenselink.mil/dbt/cse_emall.html.

DOE's "Buying Energy-Efficient Products" – Go to: http://www.eere.energy.gov/.

EPEAT® – Is a tool for evaluating the environmental performance of electronic products throughout their life cycle. The tool was developed to meet the growing demand by large institutional purchasers to buy greener electronic products. It is expected to gain wide acceptance in Electronic and Information Technology (EIT) purchasing by Federal and State governments. It can be found at: (http://www.epeat.net/).

Energy Conservation Web Sites: 1) Energy Guide EnerGuide: This Web site establishes energy-efficient guidelines for hundreds of consumer products; 2) PowerSmart: http://bchydro.com – This Web site identifies energy-efficient products and strategies to reduce energy consumption; 3) EnergyStar® products are available at the following Web site: www.energystar.gov; and 4) FEMP products: Available at: http://www.eere.energy.gov/femp/procurement.

Environmentally Preferable Purchasing (EPP) – Go to: http://www.epa.gov/epp.

EPA's Comprehensive Procurement Guidelines (CPG) – This is EPA's recycled content database – http://www.epa.gov/cpg.

EPA Database of Environmental Information for Products and Services – Includes information on products that avoid the five priority chemicals. Go to: http://yosemite1.epa.gov/oppt/eppstand2.nsf.

EPA's Greenscapes – Guidance on environmentally preferable landscaping. It is available at: http://www.epa.gov/epaoswer/non-hw/green/howto.htm.

EPA's Green Building Site – For more information see: http://www.epa.gov/oppt/greenbuilding/.

EPA Green Meetings – Go to: http://www.epa.gov/oppt/greenmeetings/.

EPA's Green Power Partnership – Provides assistance and recognition to organizations that demonstrate environmental leadership by choosing green power. Available at: http://www.epa.gov/greenpower/.

EPA's Power Profiler – Electricity is generated in many different ways with a wide variation in environmental impact. EPA's Power Profiler calculates how clean the energy is that is provided in users' areas, compared to national averages. See: http://www.epa.gov/cleanenergy/energy-and-you/how-clean.html.

EPA's Smartway Transport Program – Challenges companies shipping products and the truck and rail companies delivering these products to improve the environmental performance of their freight operations. Go to: http://www.epa.gov/smartway.

EPA WasteWise – Explores the connection between solid waste and climate change, and describes the "WARM" model for calculating the cooling effects of waste reduction. Available at: http://www.epa.gov/epawaste/conserve/smm/wastewise/index.htm.

Federal Electronics Challenge – A voluntary partnership program that encourages Federal facilities and agencies to purchase greener electronic products, reduce impacts of electronic products during use, and manage obsolete electronics in an environmentally safe way. For more information, visit: http://www.federalelectronicschallenge.net/.

Federal Green Construction Guide for Specifiers – Addresses the need for a comprehensive approach for procuring green building products and construction services within the Federal Government. The guide will help Federal agencies meet their project-specific environmental goals. Available at: http://fedgreenspecs.wbdg.org.

Federal Logistics Information System – A database of more than 7 million supply items developed by the Defense Logistics Agency. This database educates consumers about the specific environmental attributes of a product. In keeping with EPP guidelines, products are assigned up to three environmental attributes. Go to: http://www.dlis.dla.mil/hcflisv3.asp.

Federal Trade Commission's (FTC) Green Guides – The FTC, in cooperation with the EPA, has developed guidelines for advertisers to ensure that their environmental advertising and labeling claims (such as "environmentally preferable") comply with the law and do not mislead the consumer. The guide can also be used by consumers to understand different types of environmental labeling. Available at: http://www.ftc.gov/bcp/grnrule/guides980427.htm.

Financial Value Calculator – The EnergyStar® Web site offers a Financial Value Calculator spreadsheet to present a compelling business case for energy investments to senior management. It can be found at: http://www.energystar.gov/index.cfm?c=assess_value.financial_tools.

General Services Administration (GSA) Environmental Programs – Go to: http://www.gsa.gov (Select "Products" and "Services").

Global Ecolabeling Network – A non-profit network of ecolabeling organizations worldwide. Available at: http://www.gen.gr.jp.

Greenhouse Gas Emissions Calculator – Is available online from EPA. This interactive calculator helps estimate the greenhouse gas emissions of human activities, convert carbon emissions to equivalent units, and identify and compare emissions reduction options. See: http://www.epa.gov/climatechange/emissions/ind_calculator.html.

Green Purchasing Training – 1) The EnergyStar® program offers online training sessions on such topics as EnergyStar® Purchasing and Procurement; EnergyStar® – An Overview; New Building Design; Benchmarking Tool/Portfolio Manager; Money for Your Energy Upgrades; The Five-Stage Approach to Building Upgrades; and Monitor Power Management. To see the schedule or to register for a session, visit: http://www.energystar.gov/index.cfm?c=business.bus_internet_presentations; 2) Office of the Federal Environmental Executive offers slides for green purchasing overview training to agency contracting, environmental, and facilities staff. The training primarily addresses purchasing of recycled content, biobased, and environmentally preferable products and also touches on purchasing of energy-efficient products. More information is available at: http://ofee.gov/gp/gp.asp; and 3) Additional Green Purchasing Plan training sources are listed on the Pollution Prevention (P2) Technical Library's Green Procurement Web site at: http://p2library.nfesc.navy.mil/topics/gp_training.html.

Green Seal Organization –Go to: http://www.greenseal.org/.

GSA Advantage – Can be found at: http://www.gsaadvantage.gov.

GSA's Vehicle Leasing Program – Offers Alternative Fuel Vehicles as part of their service. See: http://www.gsa.gov/Portal/gsa/ep/contentView.do?P=FFFS&contentId=8060&contentType=GSA_OVERVIEW.

Guide to Resource Efficient Building Elements – Visit: http://www.crbt.org/handcrafted2.asp.

Hospitals for a Healthy Environment – Available at: http://www.h2e-online.org/.

INFORM – A research organization that provides information on ways to reduce the environmental impacts of the U.S. economy through improved product design and greener purchasing. Go to: http://www.informinc.org/.

Low Standby Products – Low standby products are those that use 1 watt of power or less during standby ("sleep") mode. Examples of these products include scanners, copiers, and fax/printers at Federal Energy Management Program. See more at: http://www1.eere.energy.gov/femp/procurement/eep_standby_power.html.

National Institute of Health's Mercury-Free NIH Web Site – Information on alternatives to mercury-bearing products is available at http://www.ors.od.nih.gov/.

National Corn Growers Association – Has a database of information on availability of corn-based products for industrial and consumer use. Go to: http://lepton.marz.com/ncga/comm_dev_center/index_PG.asp.

North American Commission for Environmental Cooperation, Trade in Environmentally Preferable Goods and Services Project – Aims to build North American markets for renewable energy and other green products and facilitates green trade through ecolabeling and green purchasing. Available at: http://www.cec.org/files/pdf/ECONOMY/121-03-05_en.pdf.

Non-Ozone-Depleting Substances – Can be seen at: http://www.epa.gov/ozone/snap/lists/index.html.

Ocean Blue Foundation for Green Meetings – Go to: http://bluegreenmeetings.org.

OFEE – This site contains Federal agency EPP links. See more at: http://www.ofee.gov/.

"Paper Calculator" – The "Paper Calculator" calculates the U.S. average energy and wood consumption and environmental releases summed across the full "life cycle" of each of five major grades of paper and paperboard. For a given grade, it allows the user to compare the environmental impacts of papers made with different levels of post-consumer recycled content, ranging from 0 percent (e.g., virgin paper) to 100 percent. Available at: http://www.ofee.gov/gp/papercal.asp.

Promising Practices Guide for "Greening" Contracts – A series of short case studies highlighting successful strategies for incorporating environmental factors into a variety of product and service contracts. Several DoD facilities, including the Pentagon, are highlighted. For more information go to: http://www.epa.gov/epp/pubs/casestudies.htm.

Purchasing for Pollution Prevention Project – INFORM: Available at: http://www.informinc.org/p3_00.php.

Sample Biobased Contract Language: Go to: http://www.usda.gov/procurement/programs/biobased/procurementtools.htm.

Sample solicitation "green" language for an IT hardware procurement – See: http://www.blm.gov/natacq/IT/.

Searchable database of vendors who sell or distribute CPG-designated products with recycled content – Visit: http://www.epa.gov/cpg/database.htm.

SNAP – Go to: http://www.epa.gov/ozone/snap/lists/index.html to see alternatives to ozone-depleting substances.

Supplier Database for Recycled Content (CPG Designated) Products – Available at: http://www.epa.gov/cpg/database.htm.

Tips for Buying "Green" with the Government Credit Card – Tips to help government purchase cardholders holders make "greener" choices when buying products, such as office supplies. Go to: http://www.epa.gov/opptintr/epp/tools/creditcard.htm.

Tips on "Greening" Conferences – A one-stop shop for green conference information including a checklist of opportunities to minimize the environmental impacts of holding meetings and conferences; contract language for obtaining "greener" conference planning/support services; and links to information on other related initiatives. Available at: http://www.epa.gov/epp/index.htm.

UNICOR is another mandatory source of supply – UNICOR's product categories include: Clothing and Textiles, Graphics, Office Furniture, Fleet Management and Vehicular Components, Electronics, Industrial Products, Recycling Activities, and Services. Its Web site describes UNICOR's green product initiatives. Visit: http://www.unicor.gov/about/environmental_sensitivity/index.cfm.

United Soybean Board – Offers a products guide that lists consumer and industrial products. Go to: http://www.soynewuses.org/.

Water-Efficiency Program, EPA – Available at: http://www.epa.gov/owm/water-efficiency/index.htm.

Whole Building Design Guide – The Whole Building Design Guide is a comprehensive, Internet-based portal to a wide range of Federal and private sector building-related guidance, criteria, and technology, including guidance and resources on sustainable design. See: http://www.wbdg.org/.

Appendix K

Definitions

Acquisition – Acquiring by contract using 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 when agency needs are established and includes the description of requirements to satisfy agency needs, solicitation, selection of sources, contract award and financing details, contract performance and administration, and those technical and management functions directly related to the process of fulfilling agency needs by contract.

Affirmative Procurement Program – Agency program required by Executive Order (EO) 13423 ensuring that Environmental Protection Agency-designated recycled content products, U.S. Department of Agriculture (USDA)-biobased products and other environmentally products and services will be purchased to the maximum extent practicable, consistent with Federal law and procurement regulations.

Alternative Fuel Vehicle – Any dedicated, flexible-fuel, or duel-fuel vehicle designed to operate on at least one alternative fuel as defined in Section 301 of the Energy Policy Act of 2005.

Biobased Product – A commercial or industrial product (other than food or feed) that uses biological products or renewable animal, marine, or forestry materials. The procurement of biobased products is established in Section 9002 of the Farm Security and Rural Investment Act of 2002 and EO 13423.The 2002 Farm Bill requires that biobased products be included in Federal APP programs. USDA-designated biobased products include mobile equipment hydraulic fluids, roof coatings, diesel fuel additives, penetrating lubricants, water tank coatings, and bedding, bed linens, and towels.

Biodegradable – The ability of a substance, material, or product ingredient to readily decompose through the action of microbes.

Carcinogen – A substance known to cause cancer in humans.

Certification – Provided by offerors, bidders, and vendors, it is written documentation certifying that the percentage of recovered materials contained in products or to be used in the performance of the contract is at least the amount required by applicable specifications or other contractual requirements. Certification on multi-component or multi-material products should verify the percentage of post-consumer materials and recovered material contained in the major constituents of the product.

Chlorofluorocarbon (CFC) – Refers to the family of compounds of chlorine, fluorine, and carbon. CFCs contribute to the depletion of the stratospheric ozone layer, and have been used as an ingredient for refrigerants, solvents, and for blowing plastic-foam insulation and packaging.

Chronic Toxicity – Capable of producing illness from repeated exposure.

Components of the Federal Green Procurement Preference Program – Recovered material, environmentally preferable, energy-efficient (EnergyStar® and energy-efficient stand-by power

devices), biobased products, alternative fuels and fuel efficiency, and non-ozone-depleting substances.

Comprehensive Procurement Guidelines – Regulations issued by the U.S. Environmental Protection Agency (EPA) pursuant to Section 6002 of Resource Conservation and Recovery Act (RCRA) identifying items produced (or which can be produced) with recovered materials.

Cost-Effective Procurement Preference Program – A procurement program favoring more environmentally-sound or energy-efficient products and services than other competing products and services, where price and other factors are equal.

Energy-Efficient Product – A product that is in the upper 25 percent of energy efficiency for all similar products, or that is at least 10 percent more efficient than the minimum level meeting Federal Government standards.

"Energy Star Certified" – "EnergyStar® certified" means a product meets the energy efficiency standards set forth by the EPA for compliance with its EnergyStar® program. These products use less energy to perform the same operation or function as a comparable piece of equipment. Examples of EnergyStar® products include computers, copiers, clothes washers, dishwashers, light fixtures, and compact fluorescent light bulbs.

Environmentally Preferable – Products or services having a lesser or reduced effect on human health and the environment when compared with competing products or services, serving the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or product or service disposal. Examples of environmentally preferable products include a printer that is EnergyStar® compliant, prints on recycled paper and also has a two-sided copying capability, paint with no or low volatility organic compounds, and 100 percent post-consumer paper that is not chemically de-inked and is processed chlorine free.

EPA-designated Item –A product or category of products containing recovered materials that has been designated by the EPA in the *Comprehensive Procurement Guidelines*.

Estimation – Quantitative determination made by vendors of the total percentage of recovered material contained in offered products.

Environmental Management System (EMS) – A set of processes and practices that enables an organization to increase its operating efficiency, continually improve overall environmental performance and better manage and reduce its environmental impacts, including those environmental aspects related to energy and transportation functions. EMS implementation reflects accepted quality management principles based on the "Plan, Do, Check, Act" model found in the ISO 14001:2004(E) International Standard and uses a standard process to identify and prioritize current activities, establish goals, implement plans to meet goals, evaluate progress, and make improvements to ensure continual improvement.

Executive Agency - An Executive or Federal agency, as defined in 5 U.S.C 105.

Federal Energy Management Program (FEMP)-Designated Products – Energy-efficient products are designated the Federal Energy Management Program of the U.S. Department of Energy. These products are among the highest 25 percent of equivalent products for energy efficiency. For each product, FEMP identifies the efficiency levels needed to meet the

requirements for procurement of energy-efficient products. Examples of FEMP-designated products include electric and gas water heaters, ice machines, boilers, and chillers.

Federal Supply Source – Any supply source managed by a Federal agency such as the General Services Administration (GSA), Government Printing Office (GPO), or Defense Logistics Agency (DLA).

Green Building Practices – The incorporation of environmental, health, and waste prevention criteria in building design, site-planning and preparation, materials acquisition, construction or remodeling, deconstruction, and waste disposal.

Green Hierarchy – The logical order by which waste prevention and effective environmental practices are applied.

Greenhouse Gases – Any of several dozen heat-trapping trace gases in the earth's atmosphere that absorb infrared radiation. The two major greenhouse gases are water vapor and carbon dioxide; lesser greenhouse gases include methane, ozone (O3), CFCs, and nitrogen oxides.

Green Products or Services – Products and services that meet the requirements of one or more of the components of Federal green procurement preference programs: the RCRA Section 6002, EO 13423, biobased product requirements of the 2002 Farm Bill, and Federal Acquisition Regulation (FAR) Part 23.

Green Purchasing Plan (GPP) – The U.S. Nuclear Regulatory Commission's (NRC's) official policy document implementing the agency's Affirmative Procurement Program (APP) program.

Hazardous Materials – Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant threat or potential hazard to human health and safety or to the environment if released into the workplace or the environment.

Integrated Pest Management – Use of a combination of pest control methods, including improved sanitation, mechanical, physical, biological, or chemical means.

Life-Cycle Cost – The comprehensive examination of a product's environmental and economic effects throughout its lifetime including new material extraction, transportation, manufacturing, use, and disposal.

Life-Cycle Cost Assessment – The amortized annual cost of a product, including costs associated with capital, installation, operations, maintenance, and disposal, discounted over the lifetime of the product.

Lubricants – Motor oil (refined motor oil) and refined lubricants such as hydraulic and transmission fluids and similar oils.

Manufacture – To produce, assemble, or import a consumer product.

Manufacturer – Any business that, or person who, manufactures a consumer product.

Material Safety Data Sheet (MSDS) – Written or printed material about a product that includes information on the product's physical and chemical characteristics; physical and health hazards; exposure limits; whether the product contains carcinogenic ingredients above a certain threshold; precautions for safe handling and use; control measures; emergency and first aid

procedures; the date of preparation of the MSDS or the last change to it; and the name, address, and telephone number of the manufacturer.

Minimum Content Standard – The minimum recovered material content of a product. The standard must be high enough to ensure the recovered material content required is the maximum available without jeopardizing the intended item use of the product.

Model Facility – An organization or activity that has made an outstanding contribution to waste prevention, recycling, and affirmative procurement through its leadership, investment in resources, and change in culture.

Ozone-Depleting Substance – Any substance designated as a Class I or Class II substance by the EPA in 40 CFR 82.

Performance Specification – A specification stating the desired product operation or function but not specifying its construction materials.

Persistent Bioaccumulative Toxics (PBTs) – Toxic chemicals that persist in the environment and increase in concentration through food chains as larger animals consume PBT-laden smaller animals. They transfer rather easily among air, water, and land, and span boundaries of programs, geography, and generations. As a result, PBTs pose risks to human health and ecosystems. They are associated with a range of adverse human health effects, including effects on the nervous system, reproductive and developmental problems, cancer, and genetic impacts. They include heavy metals and chemicals such as mercury, dioxins, and PCBs (polychlorinated biphenyls).

Pilot Project – A trial of waste prevention, recycling, or affirmative procurement practice.

Pollution Prevention – "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.

Post-Consumer Material – 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 "recovered material." "Post-consumer material" is a part of the broader category of "recovered materials."
Post-consumer Recycled Content – Percentage of a product made from materials and byproducts recovered or diverted from the solid waste stream after completing their usefulness as consumer items and used in place of raw or virgin material. Post-consumer recycled content includes materials (such as paper, bottles, and cans) collected for recycling.

Post-Consumer Waste – A material or product discarded for disposal after passing through the hands of a final user, having served its intended purpose. Post-consumer waste is part of the broader category "recycled material."

Practicable – Capable of performing in accordance with applicable specifications, available at a reasonable price and within a reasonable period of time, and while a satisfactory level of competition with other products is being maintained.

Preference – When two products or services are equal in performance characteristics and price, the government, in making purchasing decisions, will favor the more environmentally-sound or energy-efficient product.

Preference Standard – The highest practicable minimum content standard for products. When minimum content is impractical to calculate, preference is for the presence of a recovered material or an environmentally preferable trait (e.g., retread tires).

Price Preference – A percentage of increase in price that an entity will pay to obtain a designated product or service.

Processed Chlorine Free Paper – Paper that is manufactured using a percentage of post-consumer recycled paper fiber (that may contain residues of chlorine) and is whitened without adding chlorine or chlorine derivatives.

Procurement Preference Program – The first element of an agency APP program, in which an agency expresses a preference for purchasing recycled content products designated by EPA.

Procurement Request Originator – The individual or organization responsible for defining the requirements for a purchase or acquisition program. This term includes, but is not limited to, engineers, acquisition program managers, and all contract specification writers and reviewers.

Procuring Agency – Any Federal or State agency, or agency of a State's political subdivision using appropriated Federal funds for such procurement, or any person contracting with any such agency with respect to work performed under such contract.

Product Lifecycle – The attributes that affect a product over its lifespan, including raw material acquisition, manufacturing, distribution, use, maintenance, and ultimate disposal of the product. (Compare with Life-cycle Cost.)

Recovered Material – Waste materials and byproducts recovered or diverted from solid waste, excluding those materials and byproducts generated from, and commonly reused within, an original manufacturing process.

Recovered Materials Advisory Notice (RMAN) – Guidance issued by EPA, which recommends the range of recycled content that should be in products designated in the *Comprehensive Procurement Guidelines*. RMAN also contains other EPA-recommendations pertinent to purchasing recycled content products, such as reference to specifications established by government agencies or standards setting organizations.

Recyclability – The ability of a product or material to be recovered or otherwise diverted from the solid waste stream for the purpose of recycling.

Recyclable Materials – Materials that are capable of being recycled and which would otherwise be processed or disposed as solid waste.

Recycled Material – A material used in place of raw or virgin material in product manufacturing consisting of materials derived from post-consumer waste, industrial scrap, material derived from agricultural wastes, and other items, all of which can be used in manufacturing new products (see "Recovered Material").

Recycled Oil – Used oil that has been prepared for reuse as a petroleum product by refining, reclaiming, reprocessing or other means provided that the preparation or use is operationally safe, environmentally sound, and complies with all laws and regulations.

Recycled Products – Goods that contain materials that have been diverted from the solid waste stream, including post-consumer materials and materials generated in industrial processes.

Recycling – The series of activities, including collection, separation, and processing, by which products or other materials are recovered from the solid waste stream for use as raw materials in the manufacture of new products (other than fuel for producing heat or power by combustion).

Refurbished Product – A product that has been completely disassembled and restored to its original working order while maximizing the reuse of its original materials.

Remanufactured Products – Products or equipment partially or fully manufactured from existing product materials where such materials are cleaned, repaired, rebuilt or restored, and reused in the new product or equipment.

Renewable Materials – Materials made from plant-based feedstock capable of regenerating in less than 200 years, such as trees and agricultural products. Rapidly renewable resources, such as grain-based feedstocks, regenerate in less than 2 years.

Requirements Official – The individual or organization responsible for defining the requirements for a purchase or acquisition program. This term specifically refers to contracting officers' representative (CORs).

Resource Conservation and Recovery Act (RCRA) Section 6002 – Requires EPA to issue *Comprehensive Procurement Guidelines* that list designated items that are or can be made with recovered materials.

Retreaded Tire – Any tire that uses an existing casing for the purpose of vulcanizing new tread to such casing that meets all performance and quality standards in the Federal Motor Vehicle Safety Standards, as determined by the U.S. Department of Transportation.

Reusable Product – A product, such as a washable food or beverage container or a refillable ballpoint pen, than can be used several times for an intended use before being discarded.

Solid Waste – Garbage, refuse, sludges, and other discarded solid materials, including those from industrial, commercial, and agricultural operations, and from community activities. This excludes solids or dissolved materials in domestic sewage or other significant pollutants in water resources, such as silt, dissolved or suspended solids in industrial waste water effluents, dissolved materials in irrigation return flow, etc.

Requirements Official – The individual or organization responsible for defining the requirements for a purchase or acquisition program. This term specifically applies to CORs.

Source Reduction (see "pollution prevention") – Any practice: (i) reducing the amount of hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) before 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.

Specification – A clear and accurate description of the technical requirements for materials, products or services, including the minimum requirement for the quality and construction of materials and any equipment necessary for an acceptable product. In general, specifications are

in the form of written descriptions, drawings, prints, commercial designations, industry standards, and other descriptive references.

Sustainable – An action that satisfies present needs without compromising the ability of future generations to meet their needs.

Sustainable Products or Materials – Products or materials that a life-cycle analysis determines are ecological, economical, and equitable.

United Soybean Board (USB) – The USB has prepared a *Biobased Products Best Practices Guide*. The guide is available at: http://www.soybased .org/bestpractices/.

Unreasonable Price – Occurs when a recycled product cost is greater compared to virgin material cost. (Unreasonable price is not a factor when minimum content standards are specified in the statement of work or procurement request, because price estimates will only be obtained from vendors who can supply products meeting recovered material content requirements).

Verification – Procedures used by procuring agencies to confirm both vendor estimates and certifications of the percentages of recovered material contained in the products supplied to them or to be used in the performance of a contract.

Virgin Material – A mined or harvested raw material to be used in manufacturing. This includes previously unused copper, aluminum, lead, zinc, iron, other metal or metal ore, or any undeveloped resource that is, or with new technology will become, a source of raw materials.

Volatile Organic Compound (VOC) – A VOC means an organic compound characterized by a tendency to readily evaporate into the air, contributing to indoor air pollution and photochemical smog.

Waste Paper – 1) All post-consumer materials (such as discarded copy paper),
2) manufacturing wastes generated after the completion of the paper making process, and
3) finished paper and paper board from obsolete inventories.

Waste Prevention (Also known as “source reduction”) – Any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce their toxicity before they become municipal solid waste. Waste prevention also refers to the re-use of products or materials.

Waste Reduction – Preventing or decreasing the amount of waste being generated through waste prevention, recycling, or purchasing recycled and environmentally preferable products.

Water-Efficient – A product that is in the upper 25 percent of water efficiency for all similar products, or that is at least 10 percent more efficient than the minimum level meeting U.S. Federal Government standards.

Appendix L

Acronyms

ADM	Office of Administration
AF	alternative fuel
AFDC	Alternative Fuels and Advanced Vehicles Data Center
AFV	alternative fuel vehicle
APP	Affirmative Procurement Program
ARC	Agency Recycling Coordinator
BTEX	benzene, toluene, ethylbenzene, xylene
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	*Code of Federal Regulations*
CNG	compressed natural gas
CO	contracting officer
COR	contracting officer's representative
CPG	Comprehensive Procurement Guidelines
CS	contract specialist
CTQP	Cooperative Tire Qualification Program
DAS	Division of Administrative Services
DC	Division of Contracts
DFS	Division of Facilities and Security
DLA	Defense Logistics Agency
DoD	U.S. Department of Defense
DOE	U.S. Department of Energy
DoT	U.S. Department of Transportation
E85	ethanol blend of 85 percent or higher
EIT	Electronic and Information Technology
EO	Executive order
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act
EPEAT®	Electronic Product Environmental Assessment Tool
EPP	environmentally preferable purchasing
FAR	Federal Acquisition Regulation
FedBizOpps	Federal Business Opportunities
FEE	Federal Environmental Executive
FEMP	Federal Energy Management Program
FSRIA	Farm Security and Rural Investment Act of 2002
FSS	Federal Supply Service
FY	fiscal year (October 1 through September 30)
GHG	greenhouse gas
GPC	*Green Products Compilation*
GPO	Government Printing Office
GPP	Green Purchasing Plan
GSA	General Services Administration
LEED	Leadership in Energy and Environmental Design
LPG	liquefied petroleum gas
MSAs	metropolitan statistical areas
MSDS	Material Safety Data Sheets
NDAA 2008	National Defense Authorization Act of 2008

NRC	U.S. Nuclear Regulatory Commission
ODS	Ozone-depleting substances
OFEE	Office of the Federal Environmental Executive
OFPP	Office of Federal Procurement Policy
OMB	Office of Management and Budget
PL	Public Law
RA	Regional Administrators
RCRA	Resource Conservation and Recovery Act
R&D	research and development
RFP	Request for proposal (solicitation)
RMAN	recovered materials advisory notice
SNAP	Significant New Alternative Policy
SSO	Senior Sustainability Officer
USDA	U.S. Department of Agriculture
VOC	volatile organic compound