

This is a guidance document with sample specification language intended to be inserted into project specifications on this subject as appropriate to the agency's environmental goals. Certain provisions, where indicated, are required for U.S. federal agency projects. Sample specification language is numbered to clearly distinguish it from advisory or discussion material. Each sample is preceded by identification of the typical location in a specification section where it would appear using the SectionFormat™ of the Construction Specifications Institute; the six digit section number cited is per CSI Masterformat™ 2004 and the five digit section number cited parenthetically is per CSI Masterformat™ 1995.

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SECTION 01 67 00 (SECTION 01611) - ENVIRONMENTAL REQUIREMENTS FOR PRODUCTS

SPECIFIER NOTE:

Coordinate with Section 0160 00 (01600). Section 01 60 00 (01600) – Product Requirements addresses general requirements for delivery, storage, and handling. Sometimes, it also specifies general requirements for materials and equipment identified as "new." New materials include those manufactured with recycled content. New materials do not include materials salvaged or purchased for reuse.

For general information related to toxicity of various substances, refer to the Agency for Toxic Substances and Disease Registry (ATSDR), an agency of the U.S. Department of Health and Human Services. ATSDR is directed by [congressional mandate](#) to perform specific functions concerning the effect on public health of hazardous substances in the environment. These functions include health consultations concerning specific hazardous substances, health surveillance and registries, information development and dissemination, and education and training concerning hazardous substances. Refer to: refer to: <http://www.atsdr.cdc.gov/>

Also, the Center for Disease Control and Prevention (CDC) scientifically considers all factors that affect the health of the nation. The interaction between people and their environments, natural as well as human-made, continues to emerge as a major issue concerning public health; therefore, the CDC promotes the Designing & Building Healthy Places program; refer to <http://www.cdc.gov/healthyplaces/default.htm>

Edit to suit project if incorporating reused materials.

1.1 SUMMARY

- A. Section includes:
 - 1. Environmental requirements for products.

1.2 DEFINITIONS

- A. Definitions pertaining to sustainable development: As defined in ASTM E2114.
- B. Biobased Materials: As defined in the Farm Security and Rural Investment Act, for purposes of Federal procurement of biobased products, "biobased" means a "commercial or industrial product (other than food or feed) that is composed, in whole or in significant part, of biological products or renewable domestic agricultural materials (including plant, animal, and marine materials) or forestry materials." Biobased materials also include fuels, chemicals, building materials, or electric power or heat produced from biomass as defined by The Biomass Research and Development Act of 2000.

SPECIFIER NOTE:

According to the January 11, 2005 U.S. Department of Agriculture (USDA) Guidelines for Designating Biobased Products for Federal Procurement, biobased content is a percentage of the carbon in the product. The USDA will recommend the minimum biobased content of biobased products designated in the Federal Biobased Products Preferred Procurement Program, 7 CFR Part 2902. For current designations under the Federal Biobased Products Preferred Procurement Program (FB4P), refer to www.biobased.oce.usda.gov.

1. Biobased content: The amount of biobased carbon in the material or product as a percentage of weight (mass) of the total organic carbon in the material or product.
- C. Chain-of-Custody: Process whereby a product or material is maintained under the physical possession or control during its entire life cycle.

SPECIFIER NOTE:

EO 13423 defines Environmentally Preferable Products as "...products or services that have a lesser or reduced effect on the environment when compared with competing products or services that serve the same purpose". EO13514, which expands EO13423, requires Federal Agencies to "advance sustainable acquisition" to ensure that 95 percent of new purchases are: energy-efficient, water-efficient, biobased, environmentally preferable, non-ozone depleting, contain recycled content, or are non-toxic or less toxic alternatives, where such products and services meet agency performance requirements.

The EPA provides Guidance on the Acquisition of Environmentally Preferable Products and Services.

For EPA's guidance, go to <http://www.epa.gov/epp/pubs/guidance/index.htm>

Guidance on specific products or product categories is found on the Green Products Compilation created by the Office of the Federal Environmental Executive (OFEE).

http://www.fedcenter.gov/Documents/index.cfm?id=11767&pge_prg_id=20257

- D. Environmentally preferable products: products or services that have a lesser or reduced effect on the environment when compared with competing products or services that serve the same purpose.
- E. Stewardship: Responsible use and management of resources in support of sustainability.

SPECIFIER NOTE:

Under EO 13423, sustainable means "to create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations of Americans"

The following definition is consistent with the EO and with ASTM E2114.

- F. Sustainability: The maintenance of ecosystem components and functions for future generations.

1.3 SUBMITTALS

SPECIFIER NOTE:

EO 13423 directs Federal agencies to "provide reports on agency implementation of this order to the Chairman of the Council [on Environmental Quality] on such schedule and in such format as the Chairman of the Council may require; and ... provide information and assistance to the Director of the Office of Management and Budget, the Chairman of the Council, and the Federal Environmental Executive."

Refer to <http://www.wbdg.org/sustainableEO>

Additionally, under the Sustainable Building requirements per Guiding Principle #2 Optimize Energy Performance, EO 13423 directs Federal agencies to "Enter data and lessons learned from sustainable buildings into the High Performance Buildings Database." <http://femp.buildinggreen.com/>

Executive Order 13514; *Federal Leadership in Environmental, Energy, and Economic Performance*; was signed on October 5, 2009. <http://www.ofee.gov/execorders.asp> It expands upon the environmental performance requirements of EO 13423.

http://www1.eere.energy.gov/femp/regulations/printable_versions/eo13423.html

EO 13514 sets numerous Federal requirements in several areas, including:

- Federal agency heads must designate a senior management official to serve as Senior Sustainability Officer accountable for agency conformance, reporting to the Chair of the Council on Environmental

Quality (CEQ) and the Director of the Office of Management and Budget (OMB). The Senior Sustainability Officer shall prepare targets for agency-wide reductions in 2020 for greenhouse gas (GHG) emissions and shall prepare and submit a multi-year Strategic Sustainability Performance Plan.

- Agency efforts and outcomes in implementing EO 13514 must be transparent and disclosed on publicly available Federal Web sites.
- OMB must prepare scorecards providing periodic evaluation of Federal agency performance. Scorecard results must be published on a publicly available Web site.

Documentation of environmental procedures can assist in required Agency reports.

- A. With Record Submittals as specified in Section 01 78 53 (01780) – Sustainable Design Close-Out Documentation, submit the following:
1. Affirmative Procurement Reporting Form. Submit on form in Appendix A of this Section, or similar form as approved by Owner.

SPECIFIER NOTE:

Following are examples. Coordinate with Divisions 02 – 49 (2-16) as appropriate. Edit to suit project.

2. Submit environmental data in accordance with Table 1 of ASTM E2129 for the following products:
 - a. Masonry
 - b. Finish Carpentry
 - c. Plastic Fabrications
 - d. Building Insulation
 - e. Roofing
 - f. Joint Sealers
 - g. Wood & Plastic Doors
 - h. Windows
 - i. Skylights
 - j. Glazed Curtain Wall
 - k. Gypsum Board
 - l. Tile
 - m. Acoustical Ceilings
 - n. Resilient Flooring
 - o. Carpet
 - p. Wall Coverings
 - q. Paints & Coatings
 - r. Toilet Compartments
 - s. Loading Dock Equipment
 - t. Office Equipment
 - u. Furnishings & Accessories
 - v. Renewable Energy Equipment
 - w. Elevators
 - x. Plumbing fixtures and equipment.
 - y. HVAC equipment
 - z. Lighting equipment

SPECIFIER NOTE:

EO 13423 includes requirements for Federal Agencies to reduce “the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed of by the agency”

Material Safety Data Sheets (MSDSs) are required under the OSHA (Occupational Safety and Health Administration) Hazard Communication Standard 1910.1200; refer to http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10099

According to OSHA, a MSDS must include the following information (1910.1200(g)(2)):

- Product name;

- Chemical and common name(s) of all ingredients which have been determined to be health hazards or physical hazards;
- Physical and chemical characteristics of the hazardous chemical (such as vapor pressure, flash point);
- Physical hazards of the hazardous chemical, including the potential for fire, explosion, and reactivity;
- Health hazards of the hazardous chemical;
- Primary route(s) of entry;
- OSHA permissible exposure limit (Threshold Limit);
- Whether the chemical is listed in the National Toxicology Program (NTP) Annual Report on Carcinogens or the International Agency for Research on Cancer (IARC) Monographs, or by OSHA;
- Precautions for safe handling and use;
- Control measures, such as appropriate engineering controls, work practices, or personal protective equipment;
- Emergency and first aid procedures;
- Date of preparation of the material safety data sheet or the last change to it;
- Name, address and telephone number of the chemical manufacturer, importer, employer or other responsible party preparing or distributing the MSDS.

There is no OSHA-specified format for a MSDS. However, the American National Standards Institute (ANSI) has developed recommendations for a standard format (ANSI Z400.1) that is commonly used. The ANSI standard includes 16 sections. The first ten address the specific requirements under OSHA; the last six identify information that OSHA does not require, but that may be useful for green buildings.

3. Material Safety Data Sheets (MSDS): For each product required by OSHA to have a MSDS, submit an MSDS. MSDS shall be prepared **[no earlier than June 1998] [within the previous five years] [xxxx]**. Include information for MSDS Sections 1 – 16 in accordance with ANSI Z400.1 and as follows:
 - a. Section 1: Chemical Product and Company Identification.
 - b. Section 2: Composition/Information on Ingredients.
 - c. Section 3: Hazards Identification.
 - d. Section 4: First Aid Measures.
 - e. Section 5: Fire Fighting Measures.
 - f. Section 6: Accidental Release Measures.
 - g. Section 7: Handling and Storage.
 - h. Section 8: Exposure Controls/Person Protection.
 - i. Section 9: Physical and Chemical Properties.
 - j. Section 10: Stability and Reactivity Data.
 - k. Section 11: Toxicological Information. Include data used to determine the hazards cited in Section 3. Identify acute data, carcinogenicity, reproductive effects, and target organ effects. **[Provide written description of the process used in evaluating chemical hazards relative to preparation of the MSDS.]**
 - l. Section 12: Ecological Information. Include data regarding environmental impacts during raw materials acquisition, manufacture, and use. Include data regarding environmental impacts in the event of an accidental release.
 - m. Section 13: Disposal Considerations. Include data regarding the proper disposal of the chemical. Include information regarding recycling and reuse. Indicate whether or not the product is considered to be "hazardous waste" according the US EPA Hazardous Waste Regulations 40 CFR 261.
 - n. Section 14: Transportation Information. Identify hazard class for shipping.
 - o. Section 15: Regulatory Information. Identify federal, state, and local regulations applicable to the material.
 - p. Section 16: Other Information. Include additional information relative to recycled content, biobased content, and other information regarding

environmental and health impacts. **[Identify the date MSDS was prepared.]**

SPECIFIER NOTE:

Life Cycle Assessment (LCA) tools are evolving in the marketplace. While they may provide useful overall information, most remain limited especially in their capacity to address toxicity and human health issues.

To be of value for the Owner, LCAs for competing products must have comparable goals, objectives, system boundaries, functional units, and methodologies.

The BEES (Building for Environmental and Economic Sustainability) software, developed by the National Institute of Standards and Technology (NIST) [Building and Fire Research Laboratory](http://www.bfrl.nist.gov) with support from the EPA Environmentally Preferable Purchasing Program <http://www.epa.gov/epp/>, measures the environmental performance of building products by using the life-cycle assessment approach specified in ISO 14000 standards. Version 4.0 of the Windows-based tool, aimed at designers, builders, and product manufacturers, includes actual environmental and economic performance data for approximately 230 building products. Refer to <http://www.bfrl.nist.gov/oe/software/bees.html>

ASTM D7075 delineates a practice for LCA of biobased products. Under 7 CFR Part 2902, the USDA process for designating an item as biobased includes reference to BEES and ASTM D7075 as acceptable methodologies for LCA claims.

ASTM E1991 provides general guidance for developing an LCA; it does not delineate specific requirements or procedures. Verify with Owner the project goals for utilizing LCAs; identify objectives, system boundaries, functional units, and methodologies. Identify products requiring LCA data submittals and coordinate with Divisions 02 – 49 (2 – 16) as appropriate.

Following are examples.

4. Life Cycle Assessment (LCA): For the following products, submit LCA data developed in accordance with **[ASTM E1991] [ISO 14040] [xxxx]**; and where BEES data exists, submit BEES 4.0c analysis using **[100 percent] [50 percent] [xxxx]** Environmental Performance Weighting and the **[EPA Scientific Advisory Board] [Harvard University] [Equal] [xxxx]** Environmental Impact Category Weights.
 - a. Masonry
 - b. Finish Carpentry
 - c. Plastic Fabrications
 - d. Building Insulation
 - e. Roofing
 - f. Joint Sealers
 - g. Wood & Plastic Doors
 - h. Windows
 - i. Skylights
 - j. Glazed Curtain Wall
 - k. Gypsum Board
 - l. Tile
 - m. Acoustical Ceilings
 - n. Resilient Flooring
 - o. Linoleum
 - p. Carpet
 - q. Toilet Compartments
 - r. Loading Dock Equipment
 - s. Office Equipment
 - t. Furnishings & Accessories
 - u. Renewable Energy Equipment
 - v. Elevators
 - w. HVAC equipment
 - x. Lighting equipment

SPECIFIER NOTE:

ASTM D4840 specifies chain of custody documentation for laboratory samples. However, the language in ASTM D4840 is consistent with general chain-of-custody procedures for building products.

Some sustainability certification programs do not necessarily provide formalized chain-of-custody documentation, but rather require audited conformance with the sustainability program requirements through third party reviews. For such programs, a letter of conformance by the independent third party review organization demonstrating compliance with the sustainability certification program may be considered adequate documentation.

Following are examples. Coordinate with Divisions 02 – 49 (2-16) as appropriate. Edit to suit project.

5. Chain Of Custody: Submit chain-of-custody documentation for sustainable forestry for the following products:
 - a. Rough Carpentry
 - b. Finish Carpentry
 - c. Wood Doors
 - d. Windows
 - e. Wood Flooring
 - f. Furnishings & Accessories

6. Operating And Maintenance Manuals Submittals: Submit operation and maintenance data as indicated and as follows:

SPECIFIER NOTE:

The marking system indicated below is intended to provide assistance in identification of products for making subsequent decisions as to handling, recycling, or disposal.

Society of Plastic Inc. resin codes are easily recognized by the consumer. These are the numerical designations within chasing arrows. At the present time there is not a separate resin code for PLA (bio-resins). PLA (bio-resins) are classified as #7 (Other). Nor are there specific indications for additives or blends. The Society of Plastics resin code symbols are common for plastic packaging materials; for example:



ASTM D1972 standard specifies a resin code that provides substantially more information regarding the plastic resin, including blends and additives. ASTM D1972 labeling protocols are not common for packaging materials; however, they are recognized and utilized in the construction industry and other industry sectors. Many construction products are labeled according to ASTM D1972. Such detailed information is anticipated to be necessary data for future deconstruction (and recycling) efforts. Therefore, plastic construction products and plastic components of assemblies should be labeled in accordance with ASTM D1972. Example for a polypropylene containing 30 mass percentage of mineral powder use:

>PP-MD30<

- a. Verify that plastic products, including plastic components in assemblies, to be incorporated into the Project are labeled in accordance with ASTM D1972. Where products are not labeled, provide product data indicating polymeric information in Operation and Maintenance Manual.
 - 1) Products made from compositions containing a single filler, reinforcing, or other modifying material in a concentration of more than one percent by mass shall be marked with the

abbreviated term for the polymer, followed by a dash, then the abbreviated term or symbol for the additive, with its percentage by mass, arranged as shown in the example and set off with brackets. For example, a polypropylene containing 30 mass percentage of mineral powder use would be labeled: >PP-MD30<

1.4 SUBSTITUTIONS

- A. Notify Owner when Contractor is aware of materials, equipment, or products that meet the aesthetic and programmatic intent of Contract Documents, but which are more environmentally responsible than materials, equipment, or products specified or indicated in the Contract Documents.
 - 1. Requirements of Section 01 60 00 (01600), Product Requirements apply except prior to submitting detailed information required under Section 01 60 00 (01600), submit the following for initial review by Owner and Architect:
 - a. Product data including manufacturer's name, address, and phone number.
 - b. Description of environmental advantages of proposed substitution over specified product.

1.5 PACKAGING

- A. Where Contractor has the option to provide one of the listed products or equal, preference shall be given to products with minimal packaging and easily recyclable packaging.
- B. Maximize use of source reduction and recycling procedures.

SPECIFIER NOTE:

EO 13423 includes requirements for Federal Agencies to use "sustainable environmental practices, including acquisition of biobased, environmentally preferable, energy-efficient, water-efficient, and recycled-content products"

Specifically, under the Sustainable Building requirements per Guiding Principle #5 Reduce Environmental Impact of Materials, EO13423 directs Federal agencies to "use products meeting or exceeding EPA's recycled content recommendations" for EPA-designated products and for other products to "use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 10% (based on cost) of the total value of the materials in the project."

The EPA Comprehensive Procurement Guidelines (CPG) are part of EPA's continuing effort to promote the use of materials recovered from solid waste. The EPA CPG is authorized by Congress under Section 6002 of the Resource Conservation and Recovery Act (RCRA). EPA is required to designate products that are or can be made with [recovered materials](#), and to recommend practices for buying these products. EPA's Recovered Materials Advisory Notices (RMANs) recommend recycled-content levels for CPG. The paperboard and packaging category covers two major types of board: "containerboard" used to make corrugated shipping containers, and "paperboard," used in a wide variety of packaging applications such as folding cartons, "blister cards," beverage carriers, book and report covers, mailing tubes, and video cassette boxes, to name just a few. Refer to <http://www.epa.gov/cpg/products/paperbrd.htm>

Green building rating systems often include credit for materials of recycled content and may distinguish allowable credit for post-consumer and post-industrial (or pre-consumer) recycled content. USGBC-LEED™ v3, for example, factors 100 percent of post-consumer recycled content but only 50 percent of pre-consumer (post-industrial) recycled content into calculations for its recycled content materials credit. LEED v3 grants one credit to a project for using materials with recycled content such that the sum of post-

consumer recycled content plus one-half of the post-industrial content constitutes at least 10 percent of the total value of the materials in the project; 10% (post-consumer + 1/2 post-industrial). It grants an additional point for 20% (post-consumer + 1/2 post-industrial). Green Globes US also provides points for reused building materials and components and for building materials with recycled content.

Recycled content is typically determined by calculating the weight of the recycled material divided by the total weight of the product and expressed as a percentage by weight. (The recycled content "value" of a product as assessed under LEED is determined by multiplying the recycled content percentage and the cost of the product.)

Verify with manufacturer for product availability and recycled content.

- C. Industrial Paperboard: Provide minimum **[45] [xxxx]** percent post-consumer recycled content and minimum 100 percent recovered fiber content of industrial paperboard in accordance with EPA's Comprehensive Procurement Guidelines and ASTM D5663.
- D. Carrier Board: Provide minimum **[10] [15] [xxxx]** percent post-consumer recycled content and minimum **[10] [xxxx] [100]** percent recovered fiber content of carrier board in accordance with EPA's Comprehensive Procurement Guidelines and ASTM D5663.
- E. Brown Paper: Provide minimum **[5] [20] [xxxx]** percent post-consumer recycled content and minimum **[5] [40] [xxxx]** percent recovered fiber content of brown papers (e.g., wrapping papers and bags) in accordance with EPA's Comprehensive Procurement Guidelines and ASTM D5663.

SPECIFIER NOTE:

EPA GreenScapes provides a Pallets Cost Calculator available online that compares the cost of using environmentally preferable pallets made from recycled wood and recycled plastic with the cost of using conventional pallets manufactured from virgin wood. The calculator demonstrates that recycled pallets are extremely cost competitive over time due to savings in replacement and disposal, and provide many environmental benefits.

<http://www.epa.gov/epawaste/consERVE/rrr/greenscapes/tools/index.htm>

- F. Pallets:
 - 1. Plastic lumber: Provide minimum **[100] [xxxx]** percent post consumer recycled content in accordance with EPA's Comprehensive Procurement Guidelines and ASTM D5663.
 - 2. Thermoformed plastic: Provide minimum **[25] [50] [xxxx]** percent post consumer recycled content in accordance with EPA's Comprehensive Procurement Guidelines and ASTM D5663

SPECIFIER NOTE:

For current designations under the Federal Biobased Products Preferred Procurement Program (FB4P), refer to www.biobased.oce.usda.gov. As of January 4, 2010, the Federal Register includes designations for approximately 60 product types. The requirements for purchasing biobased items apply to those items directly purchased by the federal agency. Under a construction contract, the contractor's use of hydraulic fluid in its bulldozers and backhoes is incidental to the purpose of its contract, so the contractor is not required to use biobased hydraulic fluids. The Office of the Federal Environmental Executive (OFEE) recommends that agencies encourage the use of these items, however.

Currently designated items that affect construction include:

- Roof Coatings
- Water Tank Coatings
- Adhesive and Mastic Removers
- Composite Panels
- Fertilizers
- Plastic Insulating Foam

- Carpet and Upholstery Cleaners
- Carpets
- Dust Suppressants
- Packaging Films
- Glass Cleaners
- Hydraulic Fluids – Stationary Equipment
- Wood and Concrete Sealers
- Cleaners

The USDA currently has identified about 150 items for which it is collecting test data needed for the additional designations of items that will extend preferred procurement status to include all qualifying biobased products.

G. Plastic Films:

1. Biobased content:

- a. Non-Durable Films: Products that are used in packaging, wrappings, linings, and other similar applications. Films that are intended for single use for short-term storage or protection before being discarded. Non-durable films that are designed to have longer lives when used are included in this item. Provide minimum 85% biobased content.
- b. Semi-Durable Films: Products that are used in packaging, wrappings, linings, and other similar applications. Films that are designed to resist water, ammonia, and other compounds, to be re-used, and to not readily biodegrade. Products in this item are typically used in the production of bags and packaging materials. Provide minimum 45% biobased content.

H. Labeling:

1. Plastic: Mark plastic packaging to indicate type of plastic material in accordance with the Society of Plastic resin codes:

- a. Type 1: Polyethylene Terephthalate (PET, PETE).
- b. Type 2: High Density Polyethylene (HDPE).
- c. Type 3: Vinyl (Polyvinyl Chloride or PVC).
- d. Type 4: Low Density Polyethylene (LDPE).
- e. Type 5: Polypropylene (PP).
- f. Type 6: Polystyrene (PS).
- g. Type 7: Other. Use of this code indicates that the package in question is made with a resin other than the six listed above, or is made of more than one resin listed above, and used in a multi-layer combination.

1.6 ENVIRONMENTALLY PREFERABLE PRODUCTS

SPECIFIER NOTE:

The EPA provides Guidance on the Acquisition of Environmentally Preferable Products and Services. For EPA's guidance, go to <http://www.epa.gov/epp/pubs/guidance/index.htm>
Guidance on specific products or product categories is found on the Green Products Compilation created by the Office of the Federal Environmental Executive (OFEE).
http://www.fedcenter.gov/Documents/index.cfm?id=11767&pge_prg_id=20257

A. Provide environmentally preferable products to the greatest extent possible.

- 1. To the greatest extent possible, provide products and materials that have a lesser or reduced effect on the environment considering raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, and/or disposal of the product

SPECIFIER NOTE:

NSF-ISR has a draft standard for multi-attribute evaluation of environmental preferability:
NSF/GCI 355 Green Chemicals

This standard is being developed in partnership with the ACS Green Chemistry Institute. It establishes a consistent approach to the evaluation and determination of green/sustainable chemicals. The standard provides a transparent and fair means of assessing sustainable chemicals that claim to have green attributes. The standard also creates a resource for the industry to provide guidance and information about the elements of sustainable design and the manufacturing of these products. The goal is to create a standard with metrics that are relevant, measurable, and that are economically feasible. Estimated completion is Mid 2010

Edit below to suit project and to reflect latest published standard.

- B. Provide products that demonstrate compliance with NSF/GCI 355 to the greatest extent possible.

SPECIFIER NOTE:

EPA allows safer products to carry the Design for the Environment (DfE) label. This mark means that the DfE scientific review team has screened each ingredient for potential human health and environmental effects and that, based on currently available information, EPA predictive models, and expert judgment- the product contains only those ingredients that pose the least concern among chemicals in their class. EPA's DfE Program has allowed use of their logo on hundreds of products. These products are formulated from the safest possible ingredients and, in 2007, reduced the use of chemicals of concern by 80 million pounds, up from 59 million pounds in 2006. <http://www.epa.gov/dfe/index.htm>

- C. Provide products that comply with the EPA Safer Chemical Product Program and bear the EPA Design for the Environment (DfE) label to the greatest extent possible.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SPECIFIER NOTE:

Section 6002 of the Resource Conservation and Recovery Act (RCRA) requires the Office of Federal Procurement Policy (OFPP) to report to Congress every two years on the actions taken by Federal agencies to implement the statute.

EO 13423 directs Federal agencies to “provide reports on agency implementation of this order to the Chairman of the Council [on Environmental Quality] on such schedule and in such format as the Chairman of the Council may require; and ... provide information and assistance to the Director of the Office of Management and Budget, the Chairman of the Council, and the Federal Environmental Executive.

Refer to <http://www.wbdg.org/sustainableEO>

Additionally, under the Sustainable Building requirements per Guiding Principle #2 Optimize Energy Performance, EO 13423 directs Federal agencies to “Enter data and lessons learned from sustainable buildings into the [High Performance Buildings Database](#).”

Executive Order 13514; *Federal Leadership in Environmental, Energy, and Economic Performance*; was signed on October 5, 2009. <http://www.ofee.gov/execorders.asp> It expands upon the environmental performance requirements of EO 13423.

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EO 13514 sets numerous Federal requirements in several areas, including:

- Federal agency heads must designate a senior management official to serve as Senior Sustainability Officer accountable for agency conformance, reporting to the Chair of the Council on Environmental Quality (CEQ) and the Director of the Office of Management and Budget (OMB). The Senior Sustainability Officer shall prepare targets for agency-wide reductions in 2020 for greenhouse gas (GHG) emissions and shall prepare and submit a multi-year Strategic Sustainability Performance Plan.
- Agency efforts and outcomes in implementing EO 13514 must be transparent and disclosed on publicly available Federal Web sites.
- OMB must prepare scorecards providing periodic evaluation of Federal agency performance. Scorecard results must be published on a publicly available Web site.

Documentation of environmental procedures can assist in required Agency reports.

The Comprehensive Procurement Guidelines (CPG) program is authorized by Congress under Section 6002 of the Resource Conservation and Recovery Act (RCRA) and Executive Order 13423. EPA is required to designate products that are or can be made with recycled/recovered materials, and to recommend practices for buying these products. Once a product is designated, federal agencies are required to purchase it with the highest recovered material content level practicable.

The Food, Conservation, and Energy Act of 2008 (also known as the 2008 U.S. Farm Bill) largely continues programs of the Farm Security and Rural Investment Act of 2002 ([2002 Farm Bill](#)) <http://www.usda.gov/farmbill/> Section 9002 provides for preferred procurement of biobased products by Federal agencies. Federal agencies are required to purchase biobased products, as defined in regulations to implement the statute, for all items costing over \$10,000. The USDA develops guidelines for designating items made from biobased products that would be afforded preferred procurement status.

Following are sample reporting formats for construction projects.

**AFFIRMATIVE PROCUREMENT REPORTING FORM
Recycled Content Materials & Biobased Content Materials**

Project Name: _____ Project Number: _____
 Contractor Name: _____ License Number: _____
 Contractor Address: _____

Product	Total \$ value provided	Total \$ value w/ recycled content Pre-consumer	Total \$ value w/ recycled content Post-consumer	Total \$ value w/ biobased content	Exempted indicate 1,2,3,4	Comments
Hydraulic Mulch (paper based)						
Hydraulic Mulch (wood based)						
Compost						
Parking Stops (Concrete w/ fly ash, slag cement or low cement content)						
Parking Stops (Plastic/Rubber)						
Patio Blocks/Rubber						
Patio Blocks/Plastic						
Playground Surfaces						
Concrete w/ fly ash						
Concrete w/ slag cement						
Concrete w/ low cement content						
Plastic lumber						
Building Insulation						
Rock Wool						
Fiber glass						
Cellulose						
Perlite Comp Board						
Plastic Rigid Foam						
Glass Fiber Reinf Foam						
Phenolic Rigid Foam						
Ceramic tile						
Resilient flooring						
Floor Tiles/Rubber						
Floor Tiles/Plastic						
Running Tracks						
Carpet (PET)						
Paint						
Reprocessed Latex Paint White & Light Colors						
Reprocessed Latex Dark Colors						
Consolidated Latex Paint						
toilet/shower						

partitions (plastic or steel)						
Other						

CERTIFICATION

I hereby certify the information provided herein is accurate and that the requisition/procurement of all materials listed on this form comply with current EPA standards for recycled/recovered materials content.

The following exemptions may apply to the non-procurement of recycled/recovered content materials:

- 1) The product does not meet appropriate performance standards
- 2) The product is not available within a reasonable time frame
- 3) The product is not available competitively (from two or more sources)
- 4) The product is only available at an unreasonable price (compared with a comparable non-recycled content product.)

Signature: _____ Date: _____

END OF
 AFFIRMATIVE PROCUREMENT REPORTING FORM
 Recycled Content Materials & Biobased Content Materials

See attached Affirmative Procurement Report