

2007 CPG

COMPREHENSIVE PROCUREMENT GUIDELINES

TRANSPORTATION



Buying recycled products...

- ...conserves natural resources
- ...saves energy
- ...reduces solid waste
- ...reduces air and water pollutants
- ...reduces greenhouse gases
- ...creates new jobs



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Buy-Recycled Series

TRANSPORTATION PRODUCTS

The road is clear for buying recycled-content products, and many agencies are moving into high gear! Transportation officials around the country are reporting that recycled-content safety cones, traffic barricades, traffic control devices, and parking stops deliver high performance and cut installation and maintenance costs.

To make it easier to buy recycled, the U.S. Environmental Protection Agency (EPA) periodically updates the Comprehensive Procurement Guidelines (CPG). Through the CPG, EPA designates items that must contain recycled materials when purchased with appropriated federal funds by federal, state, and local agencies, or by government contractors. Several transportation products are among these items. EPA's research shows that the items designated in the CPG are of high quality, widely available, and cost-competitive with virgin products.

EPA also issues nonregulatory companion guidance—the Recovered Materials Advisory Notice (RMAN)—that recommends levels of recycled content for these items.

Why Buy Recycled?

Recycling is more than just dropping off your cans, bottles, and newspapers at the curb or at a local collection facility. Diverting recyclables from the waste stream is only the first of three steps in the recycling process. The second step occurs when companies use these recyclables to manufacture new products. The third step comes when you purchase products made from recovered materials.

Buying recycled products results in many environmental benefits. It supports local recycling programs by creating markets for the collected materials that are processed and used to manufacture new products. This creates jobs and helps strengthen the economy; conserves natural resources; saves energy; and reduces solid waste, air and water pollutants, and greenhouse gases that contribute to global warming.

What Is CPG?

The Resource Conservation and Recovery Act (RCRA) requires procuring agencies to buy recycled-content products designated by EPA in the CPG. Issued in May 1995, the first CPG designated 19 new products (including traffic barricades and traffic cones) and incorporated five previously designated items in eight product categories. The first CPG update (CPG II) was published in November 1997 and designated an additional 12 items, including parking stops and traffic control devices. A second CPG update (CPG III) was published in January 2000 and designated an additional 18 items. A third CPG update (CPG IV) was published in April 2004 and designated seven new products. The fourth CPG update (CPG V), published in September 2007, designated one new item and revised another designation. None of the last three updates designated any transportation products. For more information, visit www.epa.gov/epaoswer/non-hw/procure/about.htm.

Procuring agencies include all federal agencies, and any state or local government agencies or government contractors that use appropriated federal funds to purchase the designated items. If your agency spends more than \$10,000 per year on a product designated in the CPG, you are required to purchase it with the highest recycled-content level practicable. The CPG also applies to lease contracts covering designated items. Executive Order (E.O.) 13423 and the

Federal Acquisition Regulation also call for an increase in the federal government's use of recycled-content and environmentally preferable products.

Once any new items are designated in a published CPG update, an agency has 1 year to develop an affirmative procurement program (or revise an existing one) to include these new items. By May 1, 1996, agencies were required to develop affirmative procurement programs to incorporate buy-recycled requirements for traffic cones and barricades. By November 13, 1998, agencies were required to revise their affirmative procurement programs to incorporate parking stops and traffic control devices. Since CPG V designates no new transportation products, agencies are not required to revise this portion of their affirmative procurement program.

The CPG acknowledges, however, that specific circumstances might arise that preclude the purchase of products made with recovered materials. Your agency may purchase designated items that do not contain recovered materials if it determines that: 1) the price of a given designated item made with recovered materials is unreasonably high; 2) there is inadequate competition (not enough sources of supply); 3) unusual and unreasonable delays would result from obtaining the item; or 4) the recycled-content item does not meet the agency's reasonable performance specifications.



How Do I Purchase Recycled-Content Transportation Products?

EPA issues purchasing guidance in RMANs, which are designed to make it as easy as possible to buy the designated items. The RMANs recommend recycled-content levels to look for when purchasing transportation products, as shown in the table below. Following the RMANs' recommended levels will help ensure your affirmative procurement program and standards meet the buy-recycled requirements. The RMANs also provide other purchasing guidance. Please refer to <www.epa.gov/cpg/products.htm> for more information on individual products.

Rather than specifying just one level of recycled content, the RMANs recommend ranges that reflect actual market conditions. The recommendations are based on market research identifying recycled-content products that are commercially available, are competitively priced, and meet buyers' quality standards.

Access EPA's online recycled-content products database by going to <www.epa.gov/cpg> and selecting "Supplier Database." See the last section of this resource guide for other helpful resources.

EPA's Recommended Content Levels for Transportation Products

TRANSPORTATION PRODUCT ²	MATERIAL RECOVERED	POST-CONSUMER RECOVERED CONTENT ³	TOTAL RECOVERED CONTENT ³
Traffic Cones	Plastic (Polyvinyl Chloride [PVC] and Low-density Polyethylene [LDPE])	—	50–100%
	Crumb Rubber	—	50–100%
Traffic Barricades	Plastic (High-density Polyethylene [HDPE], LDPE, Polyethylene Terephthalate [PET])	80–100%	100%
	Steel ⁴	16%	25–30%
	Fiberglass	67%	100%
Parking Stops	Plastic and/or Rubber	—	100%
	Concrete Containing Coal Fly Ash	Generally, 20–30% but could be up to 40%. When used as a partial cement replacement as an admixture in concrete, 15%.	
	Concrete Containing Ground Granulated Blast Furnace (GGBF) Slag	—	25–70%



TRANSPORTATION PRODUCT ²	MATERIAL RECOVERED	POST-CONSUMER RECOVERED CONTENT ³	TOTAL RECOVERED CONTENT ³
Traffic Control Devices:			
Channelizers	Plastic	25–90%	—
	Rubber (base only)	100%	—
Delineators	Plastic	25–90%	—
	Rubber (base only)	100%	—
	Steel (base only) ⁴	16%	25–30%
		67%	100%
Flexible Delineators	Plastic PET	25–85%	—

¹ Transportation products containing recovered materials must conform to the Manual on Uniform Traffic Control Devices used by the Federal Highway Administration, as well as other applicable federal requirements and specifications.

² EPA's recommendations do not preclude procuring agencies from purchasing transportation products manufactured using other materials. EPA simply recommends that procuring agencies, when purchasing transportation products designated in the procurement guidelines, purchase these products containing recovered materials.

³ Content levels are based on the dry weight of the raw materials, exclusive of any additives such as adhesives, binders, or coloring agents.

⁴ The recommended recovered materials content level for steel in this table reflects the fact that the designated items can be made from steel manufactured from either a Basic Oxygen Furnace (BOF) or an Electric Arc Furnace (EAF). Steel from the BOF process contains 25–30 percent total recovered materials, of which 16 percent is post-consumer steel. Steel from the EAF process contains a total of 100 percent recovered steel, of which 67 percent is post-consumer.

Key Terms

- **Channelizers:** Channelizers are barrels or drums that direct traffic around areas of road repair and construction. Street maintenance agencies and construction contractors use channelizers on construction sites, medians, on/off ramps, mountainous terrain, and areas where fog and haze are common. Channelizers are designed and colored to be highly visible and can be constructed from recovered HDPE and rubber. The bases of the drums are weighted to provide stability and often are made from used tires.
- **Delineators:** Delineators are temporary pavement markers that come in many shapes, sizes, and compositions. They are manufactured primarily from recovered and post-consumer HDPE. Delineator bases are either steel stakes that can be driven into the ground or rubber to support the delineator on the road surface.
- **Flexible Delineators:** These products come in the form of stakes and are driven into the ground. The product is flexible enough so that vehicles can strike them without causing damage to the vehicle or the delineator. They are used at golf courses, airports, military bases, shopping centers, and recreation areas.
- **Parking Stops:** Commonly found in parking lots, parking stops are used to mark parking spaces and keep vehicles from rolling beyond a designated parking area.
- **Traffic Barricades:** Traffic barricades are used to redirect or restrict traffic in areas of highway construction or repair. They are typically made from wood, steel, plastic, or a combination of these materials. Many manufacturers have switched to the use of recycled materials in both the supporting frame and rails of the barricades.
- **Traffic Cones:** Traffic cones are used to mark a road hazard or direct traffic. In general, both recovered and post-consumer-content plastics are used in the upper component of the cones, and crumb rubber and/or plastics are used in the base.



How Can I Get More Information?

This resource guide and the following publications on buying recycled-content products can be accessed on the Internet.



Information Available From EPA

- **The CPG:** <www.epa.gov/cpg>. This site describes EPA's effort to facilitate the procurement of products containing recovered materials, including information on CPG and RMANs, and an online database of manufacturers and suppliers of designated items.
- **EPA CPG Program:** <www.epa.gov/cpg/pdf/cpgfs.pdf>. This resource guide provides general information about the CPG and the development of affirmative procurement programs.
- **Environmentally Preferable Purchasing (EPP):** <www.epa.gov/epp>. EPA's EPP program encourages and assists executive agencies in purchasing environmentally preferable products and services. The site explains EPA's proposed guiding principles for including environmental performance in purchasing decision-making, and posts case studies of successful pilot projects in both the public and private sectors.
- **Jobs Through Recycling:** <www.epa.gov/jtr>. EPA's Jobs Through Recycling program stimulates economic growth and recycling market development by assisting businesses and supporting a network of state and regional recycling contacts. This Web site provides information on financing and technical assistance for recycling businesses, as well as other market development tools.
- **Municipal Solid Waste:** <www.epa.gov/msw>. This site includes information on recycling, source reduction, and reuse. It contains state municipal solid waste data and the latest facts and figures on waste generation and disposal.
- **WasteWise:** <www.epa.gov/wastewise>. WasteWise is a free, voluntary EPA program through which organizations eliminate costly municipal solid waste, benefitting their bottom line and the environment. The program provides hands-on assistance to members to help them purchase or

manufacture recycled-content products, prevent waste, and recycle solid waste materials.

- **Federal Register (FR):** <www.epa.gov/cpg/background.htm> and <www.epa.gov/epaoswer/non-hw/procure/about.htm>. Notices promulgating CPG I (60 FR 21370) and RMAN I (60 FR 213867), May 1, 1995. FR notices promulgating CPG II (62 FR 60961) and RMAN II (62 FR 60975), November 13, 1997. FR notices promulgating CPG III (65 FR 3070) and RMAN III (65 FR 3082), January 19, 2000. FR notices promulgating CPG IV (69 FR 24028) and RMAN IV (69 FR 24039), April 30, 2004. FR notices promulgating CPG V (72 FR 52475) and RMAN V (72 FR 52561), September 14, 2007.



Other Government Sources

- **U.S. General Services Administration (GSA) Environmental Products Overview:** <www.gsa.gov/Portal/gsa/ep/channelView.do?pageTypeId=8207&channelPage=/ep/channel/gsaOverview.jsp&channelId=-12972>. GSA offers a variety of environmental products and services to its federal customers to assist them in their efforts to comply with procurement responsibilities outlined in federal environmental laws and regulations. This overview contains information about environmentally oriented products and services in the Federal Supply Service Supply System. To access GSA Advantage!, GSA's Internet-based ordering system, and order any GSA product, visit <www.gsaadvantage.gov>.
 - **Environmental Products Guide:** <www.gsa.gov/Portal/gsa/ep/home.do?tabId=2>. This GSA guide is designed to help procurement officials identify environmentally preferable products and services. It contains nearly 3,000 items, including many recycled-content products.
 - **New Item Introductory Schedule:** This GSA schedule lists parking stops that contain recovered rubber materials. For more information, contact GSA.



- **Office of the Federal Environmental Executive (OFEE):** <www.ofee.gov>. OFEE's mission is to advocate, coordinate, and assist environmental efforts of the federal community in waste prevention, recycling, affirmative procurement of CPG items, and the acquisition of recycled and environmentally preferable products and services.
 - **Greening the Government: A Guide to Implementing Executive Order 13101:** <www.ofee.gov/eo/greening.pdf>. This guide provides detailed information on the requirements of E.O. 13101, which established a process for amending the CPG and issuing RMANs. E.O. 13101 preceded E.O. 13423 and established many requirements and definitions that are still in effect. Updated in February 2001, the E.O. is available from OFEE at <www.ofee.gov>.
 - **Executive Order 13423: Strengthening Federal Environmental, Energy, and Transportation Management:** <http://ofee.gov/eo/eo13423_main.asp>. Published in January 2007, this Order replaced E.O. 13101 and requires federal agencies to purchase green products and services, including recycled-content products, energy- and water-efficient products, biobased products, and environmentally preferable products and services. Although E.O. 13423 revoked E.O. 13101, EPA continues to follow certain procedures of E.O. 13101 since they are consistent with the requirements of RCRA 6002 (e).
 - **Federal Green Purchasing Program:** <www.ofee.gov/gp/gp.asp>. This program assists federal agencies to promote the acquisition of recycled-content, environmentally preferable, and biobased products; non-ozone depleting substances; and products containing alternatives to certain priority chemicals. Training tools and other green purchasing guidance are available.
- **Federal Trade Commission:** <www.ftc.gov/bcp/grnrule/guides980427.htm>. The Federal Trade Commission issued Guides for the Use of Environmental Marketing Claims in May 1998.
- **California Recycled-Content Product Database:** <www.ciwmb.ca.gov/RCP>. This site contains information on reasons to buy recycled-content products and how to procure them, and provides access to a database with information on products, as well as manufacturers, distributors, reproducers, mills, and converters across the country.
- **King County Recycled Product Procurement Program:** <www.metrokc.gov/procure/green/index.htm>. This site describes the tools and techniques developed by King County, Washington, agencies for purchasing recycled products.



Additional Sources

- **Buy Recycled Business Alliance:** <www.nrc-recycle.org>. The Alliance includes over 3,200 companies and organizations committed to increasing the use of recycled-content products and materials in their day-to-day operations. The Alliance offers educational materials, a quarterly newsletter, and product-specific guides. Public purchasing entities can join for free.
- **Official Recycled Products Guide:** <www.dep.state.pa.us/wm_apps/recycledproducts/>. This directory lists more than 5,000 manufacturers and distributors of recycled-content products, including those for traffic cones, traffic barricades, traffic control devices, and parking stops.
- **Recycled Plastic Products Source Book:** <www.americanplasticscouncil.org>. This booklet lists more than 1,400 plastic products from approximately 300 manufacturers, including parking stops and traffic control devices.
- **Recycling Data Network Information Services:** <www.recyclingdata.com/contents.htm>. This commercial Web site provides access, on a subscription basis, to a recycled-content products database of over 4,500 listings in 700 product classifications. It also provides a reference library and a newsletter. Managed by the publisher of the Official Recycled Products Guide, the product database is considered to be the largest of its kind.

