



# Buying GREEN

## NAVY AWASH IN GREEN PROCUREMENT

The Navy's efforts to identify and procure environmentally-friendly products and services have found it awash in green procurement and well on its way to achieving Department of Defense (DoD) green procurement goals.

Green Procurement (GP) is a 'need to know' topic for all Navy personnel who request or purchase a wide array of products and services. While many aspects of green procurement have been in place for several years, initiatives have had different names, including Affirmative Procurement and Environmentally Preferable Products, resulting in some confusion. For the DoD agencies, DoD's Green Procurement Strategy brought disparate pieces together into one program. (See our accompanying article entitled, "The Essence of DoD's Green Procurement Strategy: Promoting Environmental Stewardship Through Green Procurement.")

This article summarizes GP concepts, seeks to clarify terminology associated with the different initiatives, highlights some of the program's requirements, provides sources for information and training, and notes specific Navy efforts to meet the requirements. The accompanying article entitled, "Greening the Logistics Pipeline: DLA Releases New Tools for Green Procurement"

provides additional details on support for meeting GP program requirements.

### Green Procurement—A Summary

GP is intended to increase government purchases of products or services that have a reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. GP was also designed to create a market for environmentally conscious products. Several established federal GP preference programs require procurement of environmentally preferable products and services. Such established programs include:

- the Recycled Content/Affirmative Procurement (AP) program,
- the Energy Star Program and energy and water efficiency programs,
- Alternative fuels and alternative fuel vehicles programs,
- Biobased products,
- Non-ozone depleting products, and
- U.S. Environmental Protection Agency (EPA) priority chemicals reduction.

In addition, the Environmentally Preferable Purchasing (EPP) program, another component of green procurement, encourages agencies to look at multiple factors in selecting products and services and to select the one that has the least negative effect on the environment. In other words, to look holistically at a product or service lifecycle and consider all the environmental costs.

Thus, GP provides the overarching program within which the various procurement preference programs fall. GP is not specifically an environmental program; it is a procurement program with environmental concerns.

### The Guiding Principles of ENVIRONMENTALLY PREFERABLE PURCHASING

EPA's EPP web site ([www.epa.gov/oppt/epp/index.htm](http://www.epa.gov/oppt/epp/index.htm)) identifies five guiding principles for selecting an environmentally preferable product:

1. Include environmental considerations as part of the normal purchasing process,
2. Emphasize pollution prevention early in the purchasing process,
3. Examine multiple environmental attributes throughout the life-cycle of a particular product or service,
4. Compare relevant environmental impacts when selecting products and services, and
5. Collect and base purchasing decisions on accurate and meaningful information about environmental performance.

The program responds to several federal directives:

- Executive Order (EO) 13101: Greening the Government through Waste Prevention, Recycling and Federal Acquisition,
- The Resource Conservation and Recovery Act (RCRA), Section 6002, and
- The Federal Acquisition Regulations (FAR).

DoD's GP policy memo of 27 August 2004, Implementing Green Procurement for DoD, provides Department-wide guidance. The purpose of the DoD policy is to enhance and sustain mission readiness through cost effective acquisition that achieves compliance and reduces resource consumption and solid and hazardous waste generation. The program guidance can be viewed online at [www.ofee.gov/gp/gp.htm](http://www.ofee.gov/gp/gp.htm).

The GP program identifies specific product and service categories in which green purchasing is mandatory unless written justification for selecting another product is provided. The conditions under which non-green products can be procured are dictated by FAR Subpart 23.405(c) and include ability to acquire products:

1. Competitively within a reasonable period of time,
2. At reasonable prices, or
3. To meet reasonable performance standards in the specifications.

### *Green Procurement Procedural Requirements*

While many of the DoD and FAR requirements exist, the following two requirements are especially significant for Navy personnel:

First, GP requirements apply to federal executive agencies and their employees who are responsible for the acquisition of products and services. The DoD program goes further, stating 'DoD's green procurement program is focused not only on the procurement function but also on the roles and responsibilities of each member of the Department and recognizes that every person has a role to play.'

Second, the program includes regular reporting requirements. Each agency, including the Department of the Navy,

## GP, AP, EP: WHAT DOES IT ALL MEAN?

*Green Procurement (GP Program). A GP program involves the purchase of environmentally preferable products and services. A GP program encompasses the Affirmative Procurement (AP) program, along with other federal procurement preference programs.*

### Affirmative Procurement (AP) Program

*The AP program requires each federal agency to maximize the purchase of items with recycled content. The AP program is a "subset" program under the GP program as it focuses on one type of green purchasing. Federal Agency AP program plans were required to cover all EPA Comprehensive Procurement Guideline (CPG) items.*

### Environmentally Preferable (EP)

*EO 13101 defines "environmentally preferable" as "products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service."*

### Comprehensive Procurement Guidelines (CPG)

*CPGs are the documents in which EPA officially designates the specific recycled-content products to be included in AP programs. Products designated in the CPG are often referred to as "guideline items." The CPG requirements are codified in 40 Code of Federal Regulations Part 247.*

### Preference

*When two products or services are equal in performance characteristics and price, the government, in making purchasing decisions, will favor (prefer) the more environmentally sound product or service. [Office of Federal Procurement Policy, Policy Letter 92-4]*

is required to submit an annual report on its progress in purchasing environmentally preferable products and services. Navy reports are due to the Naval Facilities Engineering Service Center (NFESC) by 1 December for the previous fiscal year. The Chief of Naval Operations Environmental Readiness Division processes the information and submits it to DoD. DoD reports are due to the

**GREEN PROCUREMENT IS NOT SPECIFICALLY AN ENVIRONMENTAL PROGRAM;  
IT IS A PROCUREMENT PROGRAM WITH ENVIRONMENTAL CONCERNS.**

## 100 PERCENT POST CONSUMER PAPER IS A GREENER ALTERNATIVE

The use of office paper is increasing each year. In 2004, the United States used eight million tons of office paper. In this same year, the federal government used 109,000 tons of office paper. By 2008, these amounts are expected to increase over 10 percent. Similar increases in paper consumption are expected to continue through the year 2020.

Recognizing that “the Nation’s interest is served when the federal government can make more efficient use of natural resources by maximizing recycling and preventing waste wherever possible,” then-President Clinton issued Executive Order (EO) 12873, the first “buy recycled” EO, in 1993. In 1998, EO 13101 was issued as a follow-up. This order requires the procurement of green items where available and justification if the green option is not purchased. The new order also increased the required level of post-consumer fiber in office papers from 20 to 30 percent. In addition, the Resource Conservation and Recovery Act (RCRA) requires that the U.S. Environmental Protection Agency (EPA) designate items that are or can be made with recovered materials (according to Comprehensive Procurement Guidelines). When EPA designates an item, the procuring agency that uses appropriated federal funds to procure that item must purchase the item

containing the highest percentage of recovered materials practicable.

Trees used from forests in regions with an ecologically valuable, biological diverse habitat account for over 71 percent of the paper use today. Factored annually, the eight million tons of office paper consumed in the United States in 2004 requires the consumption of nearly 188 million trees (forty feet in height) per year. The forests cannot sustain this type of annual yield expected to increase every year. A solution is required for this issue so that paper is in ample supply while the forests grow and thrive as a necessary part of the environment.

The good news is that 100 percent post consumer fiber paper is now available for office use without impacting the forests. Recycled paper is sourced from old paper instead of new trees, so using the highest post consumer recycled content paper available in combination with reducing paper

consumption is an effective solution. The additional pulp requirement is managed by tree farms and new sources of pulp (such as kenaf—a bamboo based plant). This greener paper meets all quality requirements and, using a lifecycle cost assessment) has the lowest cost.



Office of the Federal Environmental Executive (OFEE) by mid-March. OFEE then provides a government-wide report to the President.

The Navy’s GP information currently is collected from the Navy Procurement Management Report System and is obtained by installation Uniform Industrial Code via the Individual Contracting Action form (DD350). Computerized reporting is available via P2ADS Software. (See NFESC P2ADS Guide, Chapter 4.) The Navy submits this information as part of its Solid Waste Pollution Prevention Automated Data Survey (SW P2ADS) report. In the future, the Navy intends to collect this information directly from

installation acquisition personnel as part of the SW P2ADS. For acquisition projects that exceed \$10,000, personnel are required to complete the DD350 form. The purpose of the form is to indicate if the contract/contractor will supply or use recycled content products in the performance of the contract. The form is also used to collect information as to why a recycled content product is not used or purchased. As previously noted, there are only three permissible reasons for not using or purchasing a recycled content: price, performance and availability.

Although uncommon, installations can receive a Notice of Violation (NOV) for non-compliance with AP requirements.

According to Conservatree, every ton (40 cases) of 100 percent post consumer fiber paper saves the equivalent of:

- 24 trees forty feet in height,
- 7,000 gallons of water,
- 4,100 kilowatt hours of electricity, and
- 60 pounds of air pollution.

(Note: All cost savings are based on Southern California energy and water prices.)

If a switch to 100 percent post consumer content paper were made today, the federal government would account for \$53.4 million in energy savings (445 million kilowatt hours of electricity) and \$4.9 million in water savings (756 million gallons).

The actual cost of 100 percent post consumer fiber paper for office use is approximately \$29 to \$31 per box. This is \$3 to \$5 more per box than the 30 percent post consumer fiber paper and the tree based paper. But, when considering life-cycle costs, including energy and water savings, the greener paper actually costs \$16 to \$18 per box. When key volumes of this new greener paper are achieved, market forces should drive the cost of the 100 percent post consumer fiber paper making it the lower cost paper.

Personnel from the Naval Air Depot North Island, CA are phasing in the 100 percent post consumer fiber paper to meet the requirements of EO 13101 and



The eight million tons of office paper consumed in the United States in 2004 requires the consumption of nearly 188 million trees per year.

RCRA. The paper has performed well in the environmental program office copy machines and printers.

100 percent post consumer fiber paper is available for all Department of Defense (DoD) agencies via the Federal Industrial Supply Centers. (A DoD-wide contract vehicle is in place with BCOP Federal.) In addition, the Recycled Products Cooperative offers the paper through DoD's 'Electronic Mall'.

Quality testing results are available from both BCOP Federal and the Recycled Products Cooperative.

#### Contacts

Ray Paulson  
Naval Air Depot North Island, CA  
619-545-2907  
DSN: 735-2907  
raymond.paulson@navy.mil

Zak Karasoulas  
BCOP Federal  
800-542-4524, x-507  
zakkarasoulas@bcopfederal.com.

Kristy Rygiel  
Recycled Products Cooperative  
800-694-8355, x-217  
kristy@recycledproducts.org

In such a case, the installation should accept the NOV without entering into any formal agreement as to response actions, and immediately consult with their legal office. Additionally they should follow the guidance set forth in OPNAV Instruction 5090.1B (Chapter 2) and Marine Corps Order P5090.2A—Appendix B-1.

### Information and Training—Where to Get It

Several online sources provide current information on program background, guidance, requirements, and training, as well as identifying specific products that meet GP program requirements.

The OFEE web site (at [www.ofee.gov/gp/gp.htm](http://www.ofee.gov/gp/gp.htm)) provides a thorough overview of GP, along with links to the DoD GP program policy document and support for each of the required GP program product and service categories. It also includes links for training information and opportunities ([www.ofee.gov/gp/training.html](http://www.ofee.gov/gp/training.html)).

EPA was charged with defining many of the details arising from EO 13101, including providing recycling content guideline and addressing environmentally preferable purchasing. EPA links include:

- The Comprehensive Procurement Guideline (CPG) (at <http://www.epa.gov/cpg/products.htm>),

## SUMMARY OF FEDERAL GREEN PROCUREMENT PREFERENCE PROGRAMS

The following is a listing of federal GP preference programs.

1. Products made from recovered material in 40 CFR 247 and EO 13101, 14 September 1998, include paper and paper products, vehicular products, construction products, transportation products, park and recreation products, landscaping products, non-paper office products, and miscellaneous products (e.g., pallets containing recovered material).
2. Environmentally preferable products and services in EO 13101, Section 503, 14 September 1998, have lesser or reduced effect on human health and the environment when compared with competitive products or services that serve the same purpose.
3. Energy Star and other energy efficient products in EO 13123, 3 June 1999, are in the upper 25 percent of energy efficiency as designated by the Department of Energy's (DOE) Federal Energy Management Program (FEMP) and include appliances, heating and cooling systems, home electronics, lighting, and office equipment.
4. Water conserving products in the Energy Policy Act of 1992 and EO 13123, 3 June 1999, have a payback period of less than 10 years and include toilets, urinals, faucets, and showerheads.
5. Biobased products in EO 13134, 12 August 1999, and the Farm Security and Rural Investment Action of 2002, Section 9002, are commercial or industrial products (other than food or feed) that utilize biological products or renewable domestic agricultural (plant, animal, and marine) or forestry materials.
6. Products containing non-Ozone Depleting Substances in EO 13148, Section 206, 21 April 2000, do not contribute to stratospheric ozone depletion and include refrigeration & air conditioning, fire suppression and explosion protection, and solvents used in adhesives, coatings, and inks.
7. Fleet and transportation efficiency initiatives in EO 13149, 21 April 2000, increase fleet fuel efficiency and the use of alternative fuel vehicles and alternative fuels.
8. Energy-efficient stand-by power devices in EO 13221, 31 July 2001, are off-the-shelf commercially available products that use no more than one watt in their standby power-consuming mode. DOE's FEMP Program develops lists of recommended products that meet this requirement.
9. Alternative financing contracting mechanisms (e.g., energy-savings performance contracts, utility energy-efficient service contracts) in EO 13123, 3 June 1999, to improve buildings and install new equipment to meet energy reduction goals with no net cost to taxpayers (e.g., lighting, heating, cooling systems).
10. Renewable energy technologies in EO 13123, Section 204, 3 June 1999, to expand use within facilities and operations (e.g., solar energy systems).
11. Beneficial/sustainable landscaping practices in EO 13148, Section 207, 21 April 2000, to promote the sustainable management of lands through the implementation of cost-effective, environmentally sound landscaping practices, and programs to reduce adverse impacts to the natural environment.



Water conserving products, including faucets, have a payback period of less than 10 years.  
Photo by Victoria Bermel

- Environmentally Preferable Purchasing (at <http://www.epa.gov/oppt/epp/index.htm>), and
- EPA's Guidance on Environmentally Preferable Purchasing for Executive Agencies (at <http://www.epa.gov/fedrgrstr/EPA-GENERAL/1999/August/Day-20/g21664.htm>).

DoD's 'Electronic Mall' (DOD EMALL) on-line 'shop & buy' program and the Federal Logistics (FEDLOG) catalog

on DVD (updated quarterly and available through subscription) identify green products with a distinctive green tree icon.

The Navy's own AP document (NAVSUP P-728) and selected GP topics are available at [www.denix.osd.mil/denix/Public/News/NAVSUP4C3/Programs/AffirProc/affirm.html](http://www.denix.osd.mil/denix/Public/News/NAVSUP4C3/Programs/AffirProc/affirm.html) or can be ordered through the stock system via reference number COG 01 STOCK NO. 0530-LP-101-2482.

# THE NAVY SUPPORTS DoD's GREEN PROCUREMENT PROGRAM GOAL OF 100 PERCENT COMPLIANCE WITH MANDATORY FEDERAL GREEN PROCUREMENT PROGRAMS IN ALL ACQUISITION TRANSACTIONS.

The Joint Service Pollution Prevention Technical Library provides links to several documents, including "Integrating Green Purchasing into your Environmental Management System" which can be found at <http://p2library.nfesc.navy.mil/topics/green.html>.

The Defense Logistics Agency Training Center (DTC) will be offering a workshop, Buying Green: A Multifunctional Approach to Pollution Prevention. (See our sidebar entitled, "Buying Green: A Multifunctional Approach to Pollution Prevention.")

## Where is the Navy Going with Green Procurement?

The Navy supports DoD's GP program goal of 100 percent compliance with mandatory federal GP programs in all acquisition transactions. The Affirmative Procurement document (NAVSUP P-728) continues to apply. In addition, the update to the OPNAV Instruction 5090.1B: Navy Environmental and Natural Resources Program Manual will include additional information on green procurement. The next step is to create a Department of the Navy GP Plan (or adopt the DoD GP Strategy), which will include the AP guide as well as the other GP programs.

In practice, the Navy already is at work on several of the GP program categories.


The Navy has actively pursued alternative fuels and alternative fuel vehicles. The Navy's January 2005 biodiesel policy provided additional support to these efforts. The policy required all non-exempt diesel vehicles to begin using biodiesel (B-20) fuel by 1 June 2005, where such fuel is available and permissible by federal, State and/or local rules.

In addition to biodiesel, the Navy is using natural gas, ethanol, and propane in modern internal combustion vehicles on domestic installations. The Navy is also addressing the alternative fuel infrastructure needed to support other alternative fuel vehicles. An on-site biodiesel production demonstration is underway at Naval Base Ventura County in Port Hueneme, CA. It is processing used cooking oils from on-base sources such as the base galley and commercial fast food franchises. A natural gas to hydrogen reforming station was slated for installation at U.S. Marine Corps Base Camp Pendleton.

Biobased products include wheat and corn based blasting media, to replace plastic media for removing paint from metal surfaces. (See our article entitled,



"Navy Evaluates Cornstarch As An Alternative Blast Media: Results From First Demonstration Are Encouraging," in the winter 2005 issue of Currents. Browse the entire Currents archive on the Naval Air Systems Command's environmental web site at [www.enviro-navair.navy.mil](http://www.enviro-navair.navy.mil).)

These are just a few examples that prove that the Navy is awash in green procurement. 

*NOTE: Tanya Courtney, the former GP program manager with the Chief of Naval Operations, Environmental Readiness Division, made significant contributions to this article.*

## CONTACTS

### Mike Pletke

Chief of Naval Operations  
Environmental Readiness Division  
703-604-5413  
DSN: 664-5413  
[mike.pletke@navy.mil](mailto:mike.pletke@navy.mil)

### Jody Giacoman

Naval Facilities Engineering Command  
202-433-5321  
DSN: 228-5321  
[jody.giacoman@navy.mil](mailto:jody.giacoman@navy.mil)

### Deborah Morefield

Headquarters, U.S. Marine Corps  
703-695-8302, x-3332  
DSN: 426-8302, x-3332  
[MorefieldDA@hqmc.usmc.mil](mailto:MorefieldDA@hqmc.usmc.mil)