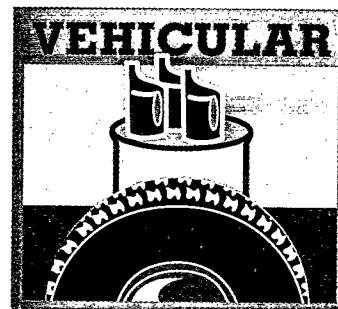




# 1996 Buy-Recycled Series Vehicular Products



**I**f you're a fleet manager, buying recycled vehicular products can take you a long way down the road toward protecting the environment and saving resources. Cost-effective, reliable, and high quality recycled vehicular products such as re-refined oil, retreaded tires, and recycled engine coolants are being used with success by many government agencies nationwide. These products work just as well as comparable new products and can save money over the long term.



To help you begin buying recycled, the U.S. Environmental Protection Agency (EPA) recently published the Comprehensive Procurement Guideline (CPG), which identifies seven categories of items, including vehicular products, that are available with recycled content or can be recycled on site. Federal, state, and local agencies and government contractors that use appropriated federal funds should purchase these items. EPA also released a companion guidance document—the Recovered Materials Advisory Notice (RMAN)—that recommends levels of recycled content that should be purchased, based on EPA's current market research concerning the availability, quality, and price of recycled products in these categories.

You might be unfamiliar with buying re-refined oil, retreaded tires, or recycled engine coolant. You might think it's risky business. But studies and experience have shown that buying recycled can save money, reduce solid waste, and provide markets for recyclable materials collected nationwide.

EcoPurchasing means  
considering attributes  
such as

❖  
recycled content  
toxicity  
reusability  
durability  
repairability

❖  
before you buy  
a product.





## What Is The CPG?

**The CPG  
requires  
federal  
agencies to  
give  
preference to  
items made  
from  
recycled  
materials.**

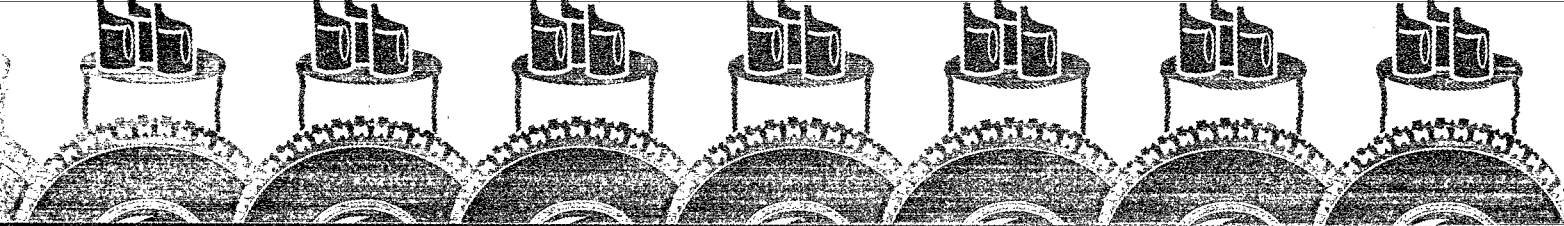
**R**ecycling is growing all across America, making it more important than ever to find buyers for these collected materials. That's why President Clinton signed Executive Order 12873 in October 1993, calling for an increase in the federal government's use of recycled-content products. Developed in response to the Executive Order, the CPG requires federal agencies to give preference to EPA-designated items made with recovered materials—which in turn will support recycling markets and allow recycling to continue to expand.

Issued in May 1995, the CPG designates 19 new products and incorporates 5 previously designated items (including re-refined oil and retreaded tires) in 7 product categories that procuring agencies are required to purchase with recycled content. (A procuring agency is any federal, state, or local agency or government contractor that uses appropriated federal funds to purchase products.) 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.

Your agency must develop an affirmative procurement program (or modify its existing program) to incorporate buy-recycled requirements

for designated products as of May 1, 1996. This might involve reviewing your specifications for these products and eliminating provisions that might pose barriers to their procurement (such as aesthetic requirements unrelated to product performance). As soon as the program is in place, your agency should begin following the guidelines for purchasing designated products.

The CPG acknowledges, however, that specific circumstances could arise that would preclude the purchase of products made with recovered materials. Under the CPG, you may purchase designated items that do not contain recovered materials if you determine that (1) the price of a given item made with recovered materials is unreasonable, (2) there is inadequate competition (not enough sources of supply) for the item, (3) unusual and unreasonable delays would result from obtaining the item, or (4) the item does not meet your agency's reasonable performance specifications.

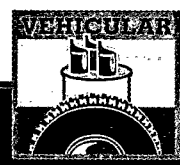


# How Do I Purchase Recycled-Content Vehicular Products?

To help agencies comply with buy-recycled requirements, EPA also issued guidance in the RMAN, which is designed to make it as easy as possible to comply with the CPG. The RMAN recommends recycled-content levels to look for when purchasing the vehicular products as shown in the chart below. Following the RMAN's recommended levels will help ensure that your purchases meet CPG requirements.

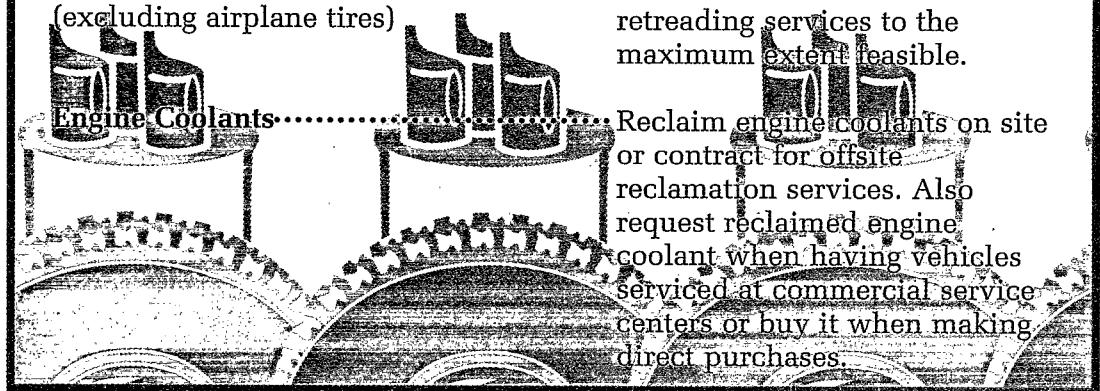
The RMAN recommends recycled-content or purchasing options that are based on market research to identify commercially available, competitively priced, quality recycled-content products.

The RMAN recommends recycled content ranges or purchasing options that reflect what is currently available.



## RMAN Recommendations for Vehicular Products

Vehicular Product	Recommendations
Re-Refined Oil.....	25 percent or more re-refined oil base stock for lubricating oils, hydraulic fluids, and gear oils.
Retread Tires ..... (excluding airplane tires)	Purchase retread tires or tire retreading services to the maximum extent feasible.
Engine Coolants.....	Reclaim engine coolants on site or contract for offsite reclamation services. Also request reclaimed engine coolant when having vehicles serviced at commercial service centers or buy it when making direct purchases.





## Myths and Facts About Recycled-Content Vehicular Products

**D**espite the fact that federal agencies have been required to buy re-refined oil and retreaded tires for several years, the compliance rate is low. To determine why agencies have been slow to accept the use of these products, EPA interviewed federal fleet managers, other government officials, and industry representatives. EPA found that managers still believed various myths about these products. Several agencies using recovered-content products, however, have proven that they work well and are cost-effective. Some of the common myths are dispelled below. At the end of this fact sheet, you can find an extensive list of additional resources for more information.

### Re-Refined Oil

**MYTH 1:** *Re-refined lubricating oil is inferior to new lubricating oil.*

**FACT:** Re-refined oil is subject to the same stringent refining, compounding, and performance standards as virgin oil. Extensive laboratory testing and field studies conducted by the National Bureau of Standards (now NIST), the U.S. Army, the Department of Energy, the U.S. Postal Service (USPS), and EPA have concluded that re-refined oil is equivalent to virgin oil, it passes all prescribed tests, and it can even outperform virgin oil. The American Petroleum Institute (API) has licensed qualified re-refined oil products, which display the API starburst and/or donut symbol.

**MYTH 2:** *Re-refined oil costs more than virgin oil.*

**FACT:** In most cases, re-refined oil prices are comparable to equivalent virgin oil product pricing. WAL-MART, a national distributor of vehicular oils, is currently selling a re-refined oil for 10 percent less than virgin oils.

Re-refined oil product pricing is affected by a number of variables, however, including availability of used oil. The best method for determining price is through the marketplace.

**MYTH 3:** *Using re-refined oil voids manufacturers' warranties.*

**FACT:** All three of the major U.S. automobile manufacturers (Ford, General Motors, and Chrysler) now recognize that re-refined oil can meet the performance criteria specified in their warranties. Each has issued a written statement explaining that the use of re-refined oil will not void warranties. Warranty requirements are based on performance criteria, not on the origin of the base oil. As long as the oil meets the warranty requirements, which many re-refined oils do, the warranty must be honored.

**CASE STUDY:** USPS is using re-refined oil-based lubricants in more than 100,000 vehicles (more than one-half of its fleet). USPS also implemented a closed loop recycling program whereby its used oil is collected, re-refined, and sold back to the service. After numerous vehicle miles, chemical analyses of re-refined and virgin oil samples taken from USPS vehicles showed that using re-refined oil was no different than using virgin oil-based lubricants.

For more information, contact Richard Harris, USPS, at 202 268-3576.

**CASE STUDY:** The Santa Ana, California, USPS District uses a closed loop system for re-refining used oil. In its fleet of nearly 4,500 vehicles, the district uses more than 22,000 quarts of motor oil per year and saves more than \$1,300 each year by re-refining its used oil. For more information, contact Jon Martin at 714 842-2528.



## Retread Tires

**MYTH 1:** *Retreads are less safe than new tires.*

**FACT:** Statistics compiled by the U.S. Department of Transportation show that nearly all tires involved in any tire-related accidents were underinflated or bald. Properly maintained tires—both new and retreaded—do not cause accidents. Retreaded tires have been safely used on school buses, trucks, cars, and fire engines and other emergency vehicles for years.

**MYTH 2:** *Retreads have a higher failure rate than new tires.*

**FACT:** Rubber on the road comes from both new tires and retreaded tires, primarily from truck tires that are overloaded, underinflated, or otherwise abused, as opposed to poor retread product quality. New or retreaded tire failures can be greatly reduced by following all the rules of good maintenance, including proper mating with regard to diameter and tread depth and design, as well as maintenance of proper air pressure.

## Recycled Engine Coolants

**MYTH 1:** *Recycled engine coolant is inferior to new engine coolant.*

**FACT:** Testing has shown that recycled coolant can meet nationally-recognized performance specifications for new coolant, such as those established by the American Society for Testing and Materials and the Society of Automotive Engineers. The recycling process reduces the chlorides that come from hard water so that recycled antifreeze may actually be purer than the original.

**MYTH 2:** *Recycled coolant costs more than new coolant.*

**FACT:** Recycled coolant can cost less than new coolant if you select the right recycling process for your shop. You must consider the cost of new coolant and your current disposal costs and compare these to the cost of onsite or offsite recycling.

**CASE STUDY:** After noticing poor tire performance in new tires, the fleet manager at Fort McCoy, Wisconsin, tested 20 retreaded tires in 1990. Pleased with the results, he purchased 60 retreaded tires the following year and about 600 retreads for 500 vehicles in 1995. The facility has found that retreads provide superior handling and fail less often than new tires. They also cost about \$20,000 less per year. For more information, contact Jerry Cooper, General Services Administration Fleet Inspector, at 608 269-4429.

**CASE STUDY:** In 1992, USPS operated 179,000 vehicles and retreaded 50,000 tires. In 1994, the fleet grew to 202,000 vehicles that used 76,000 retreads. USPS vehicles travel in all kinds of weather on both paved and unpaved roads. This 52 percent growth in the number of retreads over two years reflects USPS's belief that retreads meet their performance and quality needs. For more information, contact Richard Harris, USPS, at 202 268-3576.

**CASE STUDY:** In a pilot study, the Southeast area of the USPS is implementing an onsite coolant recycling program. Commercial vacuum distillation machines are in use in many of the postal vehicle maintenance facilities throughout the Southeast. Those facilities have substantially reduced the amount of new products they purchase. Once all facilities make the switch, about 7,000 gallons (75 percent) of concentrated coolant will be reused each year by the Southeast postal fleet. For more information, contact Bob Martin at 901 747-7635.

**CASE STUDY:** USPS' Huntington Beach, California, Vehicle Maintenance Facility uses an in-house extraction and recovery process for its engine coolants. The units recover virtually all of the ethylene glycol left in the spent coolant. Recovering the coolant reduces total waste stream volume and saves money by reducing costs for disposal and for purchasing new coolant. For more information, contact Jon Martin at 714 842-2528.



## Myths and Facts About Recycled-Content Vehicular Products

**MYTH 3:** *Spent coolants are hazardous waste and those handling them must follow hazardous waste regulations.*

**FACT:** Spent coolants are not listed by EPA as a hazardous waste. Some older test data indicated used coolant sometimes had levels of lead requiring it to be regulated as a hazardous waste. Most vehicular radiators are now made with aluminum cores and plastic tanks, however, so there is less opportunity for lead contamination of coolant today than in the past. Some states still consider it to be hazardous, however. Contact your state environmental agency for further information.

**MYTH 4:** *Recycled coolant will void manufacturers' warranties.*

**FACT:** Coolant recyclers have worked with automotive and truck engine original equipment manufacturers (OEMs) to get their approval on coolant recycling processes. Check with your recycler for a list of OEM approvals.

**CASE STUDY:** General Motors (GM) endorses several coolant recycling systems and states that "The warranty of General Motors will be unaffected if engine coolant recycling is performed as described by the manufacturer and with GM-approved recycling equipment." Ford expressly authorizes the use of certain engine coolant recycling processes and chemicals that meet its specifications. Chrysler allows any coolant to be used (virgin or recycled) as long as it meets Chrysler's and ASTM's specifications for ethylene glycol. For more information, call Richard Paul at the American Automobile Manufacturer's Association at 313 872-4311.

### Coolant Recycling Processes

**T**he RMAN recommends that procuring agencies establish a program for engine coolant reclamation and reuse either on site or through a service contract.

There are three general types of coolant recycling processes: filtration, distillation, and ion exchange. Since variations exist among the various processes, check with the system manufacturer for specifics regarding coolant produced by the system.

**Filtration** is the most common type of recycling process. It has the lowest initial investment but has high operating costs. Coolants often contain dissolved solids and filtration systems often require pre- and post-filter treatment as well.

**Distillation** evaporates and recondenses the coolant. This is a slow process that has high initial investment but requires less operator involvement and lower operating costs. Solids and other chemicals are left behind as a residue that must be managed according to applicable laws.

**Ion exchange** removes solids and other chemicals from the coolant as it passes through a resin bed. Periodically this bed must be regenerated to remove the buildup. Equipment costs are higher than most other systems. Operating costs are comparable to filtration systems.





## How Can I Get More Information?



### Information Available from EPA

The following publications on buying recycled and the CPG are available through the RCRA Hotline. To order, call 800 424-9346 (or TDD 800 553-7672 for the hearing impaired). In Washington, DC, the number is 703 412-9810 or TDD 703 412-3323. The RCRA Hotline is open Monday through Friday, 9 a.m. to 6 p.m. EST.

- ❖ **Federal Register** notices establishing the CPG (60 FR 21370/EPA530-Z-95-006) and the RMAN (60 FR 21386/EPA530-Z-95-007), May 1, 1995.
- ❖ **EPA Issues Comprehensive Procurement Guideline** (EPA530-F-95-010). This four-page fact sheet provides general information about the CPG and the development of affirmative procurement programs.
- ❖ **Environmental Fact Sheet—Purchasing and Maintaining Retread Passenger Tires** (EPA530-F-95-019), September 1995. This EPA and General Services Administration fact sheet provides information on waste prevention, proper tire maintenance, and tire retreading for fleet managers and vehicle operators.
- ❖ **List of Manufacturers and Suppliers of Vehicular Products Containing Recovered Materials** (EPA530-B-96-001). This list has been prepared to facilitate the implementation of the CPG and to assist customers interested in purchasing vehicular products containing recovered materials.

These documents also are available on EPA's Public Access Server on the Internet ([gopher.epa.gov](http://gopher.epa.gov)). For the text of **Federal Register** notices, choose: **Rules, Regulations, and Legislation; Waste Programs; EPA Waste Information-GPO; and Year/Month/Date**. This fact sheet, the technical support documents, and the product availability lists are available under **EPA Offices and Regions; Office of Solid Waste and Emergency Response; Office of Solid Waste; Nonhazardous Waste; and Procurement**.



### Other Sources of Information—

#### General

- ❖ **Environmental Products Guide**. This guide, published by the U.S. General Services Administration (GSA), is a handy reference companion to the GSA Supply Catalog and Federal Supply Schedules. It provides information on the acquisition of engine coolant reclamation systems. The guide is also available on GSA's Multi-User File for Interagency News (MUFIN), an electronic bulletin board. For copies of the guide or MUFIN manual, contact GSA, Centralized Mailing List Service (7CAFL), 4900 Hemphill Street, P.O. Box 6477, Ft. Worth, TX 76115 or call 817 334-5215. For computer support help with MUFIN, call 703 305-7200.

- ❖ **DLA Environmental Products Catalogue**. This document is an important source of supply for environmental products from the Defense Logistics Agency. It includes items from all DLA Inventory Control Points containing recycled material or having other environmental benefits. For more information, call 800 352-2852 or fax 800 352-3291. Military customers can call DSN 695-5699 or fax DSN 695-5695. For information on the CDROM version of the catalogue, contact the DLA Service Center at 616 961-4459 or DSN 932-4459.
- ❖ **The Official Recycled Products Guide**. This document is a comprehensive directory of recycled-content products and contains more than 5,000 listings of manufacturers and distributors. For more information, contact the Recycling Data Management Corp., P.O. Box 577, Ogdensburg, NY 13669. Phone: 800 267-0707.
- ❖ **Office of the Federal Environmental Executive (OFEE)**. The OFEE offers a number of resources to help government agencies learn about CPG designated products. Contact: Office of the Federal Environmental Executive, 401 M Street, SW. (MC 1600), Washington, DC 20460 or call 202 260-1297 or fax 202 401-9503. Email: [mcpoland.fran@epamail.epa.gov](mailto:mcpoland.fran@epamail.epa.gov).
- ❖ **Closing the Circle News**. This newsletter reports on the government's progress towards an environmentally-conscious and friendly approach to recycling, acquisitions, and procurement. The Fall 1995 issue contains an article entitled "OFEE Helps Negotiate an End to Gridlock on Re-Refined Oil."
- ❖ **Roadmap to Buying Recycled Vehicular Products**. This video was produced by the Office of the Federal Environmental Executive and the U.S. Postal Service. It highlights availability, performance, and warranty issues of re-refined oil, retread tires, and reclaimed engine coolant. It features a message from the Federal Environmental Executive and insight from experiences of fleet management personnel from five federal agencies. It is available free of charge.
- ❖ **Greening of the Government: A Guide to Implementing EO 12873**. This document provides detailed information on establishing and implementing affirmative procurement plans and is available free of charge. It contains information on oil and tires, including automobile manufacturers warranty-related statements on re-refined oil.

#### Other Sources—Re-Refined Oil

- ❖ **The Defense Logistics Agency General Supply Center**, Richmond Products Catalog supplies rerefined oil. Phone: 800 345-6333 or DSN 695-4908.
- ❖ Copies of GSA's guidance on the use of re-refined oil in Interagency Fleet Management Systems Vehicles can be obtained from Larry Frisbee, Fleet Management Division, GSA, Washington, DC 20406 Phone: 703 305-6837. Fax: 703 305-7158.
- ❖ Contact the **Buy Recycled Campaign** for automobile manufacturers' warranty statements on the use of re-refined oil. Call the U.S. Conference of Mayors, 1620 Eye Street,

# How Can I Get More Information?

Washington, DC 20006. Phone: 202 293-7330. Fax: 202 429-0422. Warranty statements are also available from the Office of the Federal Environmental Executive at 401 M Street, SW. (MC 1600), Washington, DC 20460 or call 202 260-1297 or fax 202 401-9503. Email: mcpoland.fran@epamail.epa.gov.

- ❖ **Buy Recycled Campaign/Training Institute Fact Sheet on Re-Refined Oil.** This document is available without charge to local governments from the U.S. Conference of Mayors, 1620 Eye Street, NW, Washington, DC 20006. Phone: 202 293-7330. Fax: 202 429-0422. It is also available to the private sector from the National Recycling Coalition at 1727 King Street, Suite 105, Alexandria, VA 22314. Phone: 703 683-9025. Fax: 703 638-9026.
- ❖ For a limited time, three cases of re-refined oil are available free to federal entities and local governments of over 30,000 people by contacting the U.S. Conference of Mayors, 1620 Eye Street, NW, Washington, DC 20006. Phone: 202 293-7330. Fax: 202 429-0422. Private sector companies with a minimum of 50 service fleet vehicles can contact the National Recycling Coalition for three free cases at 1727 King Street, Suite 105, Alexandria, VA 22314. Phone: 703 683-9025. Fax: 703 638-9026.
- ❖ The Office of the Federal Environmental Executive has a list of 940 WAL-MART locations that offer re-refined oil with their "Tire and Lube Express" services. This is available in hard copy and on disk. (Most WAL-MARTs offer re-refined oil off the shelf.) Contact Office of the Federal Environmental Executive at 401 M Street, SW. (MC 1600), Washington, DC 20460 or call 202 260-1297 or fax 202 401-9503. Email: mcpoland.fran@epamail.epa.gov.

## Other Sources—Retread Tires

- ❖ For additional information about the Federal Tire Program, including copies of the **Qualified Products List**, GSA specifications, and GSA-approved retreading facilities, contact GSA-FSS-FCAE, Attention: K.L. Collings, Jr., Manager, Federal Tire Program, CM4, Room 604, Washington, DC 20406. Phone: 703 308-4673. Fax: 703 305-3034. Email: kenneth.collings@gsa.gov.
- ❖ **Tire Tips and Facts.** This document, published by GSA's Federal Tire Program, provides tire purchasers and users with

information on new products, tire maintenance, retreading, and industry trends. To be added to the mailing list, contact GSA-FSS-FCAE, Attention: K.L. Collings, Jr., Manager, Federal Tire Program, CM4, Room 604, Washington, DC 20406. Phone: 703 308-4673. Fax: 703 305-3034. Email: kenneth.collings@gsa.gov.

- ❖ For additional information about tire retreading and tire repairing, including a video, **The Use of Retreaded Tires on Government Vehicles**, contact the Tire Retread Information Bureau, 900 Weldon Grove, Pacific Grove, CA 93950. The Bureau will rebate 10 percent from the lowest price federal fleet managers are able to negotiate for their initial retread tire purchase. The offer is good for fleet tires sent for retreading or for "cap and casing" retreads that are purchased through July 1996. Phone: 408 372-1917. Fax: 408 372-9210.
- ❖ **Buy Recycled Campaign/Training Institute Fact Sheet on Retread Tires.** This document is available without charge to local governments from the U.S. Conference of Mayors, 1620 Eye Street, NW, Washington, DC 20006. Phone: 202 293-7330. Fax: 202 429-0422. It is also available to the private sector from the National Recycling Coalition at 1727 King Street, Suite 105, Alexandria, VA 22314. Phone: 703 683-9025. Fax: 703 638-9026.
- ❖ **International Tire and Rubber Association**, Marvin Bozarth, Executive Director, P.O. Box 37203, Louisville, KY 40233-7203. Phone: 800 426-8835. Fax: 502 964-7859.
- ❖ **National Tire Dealers and Retreaders Association**, John F. Buettner, Sr., Director, Tire Retreading Institute, 1250 I Street, NW, Suite 400, Washington, DC 20005-3922. Phone 800 876-8372. Fax: 202 682-3999.

## Other Sources—Recovered Engine Coolants

- ❖ **The Society of Automotive Engineers'** paper #921634 offers information about recovered engine coolants. Entitled "An Evaluation of Engine Coolant Recycling Technologies," the paper is available by calling 412 776-4841.
- ❖ For information on USPS' testing and approval of recycled engine coolant, call Vincent Tung, Mechanical Program Engineer, USPS, 8403 Lee Highway, Merrifield, VA 22082-8101. Phone: 703 280-7052. Fax: 703 280-4541.



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Environmental Protection Agency  
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