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EPPUpdate

Issue 10 | January 2002

ENVIRONMENTALLY PREFERABLE PURCHASING

Environmental Management Systems Drive Agencies To Meet EPP Goals

Organizations around the world are using Environmental Management Systems (EMSs) more and more to integrate environmental considerations into day-to-day decisions and practices. Recently, public agency facilities at all levels—federal, state, and local—have begun implementing EMSs to reduce their operational costs and to improve overall environmental performance. Moreover, Executive Order 13148, “Greening the Government Through Leadership in Environmental Management” (which can be found at: www.fedgovcontracts.com/fedregs/65f24593.htm), requires federal agencies to implement EMSs by the end of 2005 at all applicable facilities.

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Highlights

- EMSs and EPP
- New Product-Specific Purchasing Guides
- Federal Electronics Stewardship Forum
- EPP Grants
- Biobased Lubricants
- NPS Partnership
- And More!

PROFILE OF A PIONEER:

Working Toward a Greener EPA

The new EPA Headquarters complex is located in the historic Federal Triangle District in the heart of the Nation's capital. Part of what makes these new and old buildings so important goes beyond their impressive architecture. The buildings incorporated sustainable building practices where feasible through all phases of design and construction. Thanks to many dedicated individuals, including EPA's Cathy Berlow, the EPA Headquarters Project became a reality.

Cathy was involved in EPA's headquarters project long before she was an EPA employee. She had previously worked at the Pennsylvania Avenue Development

Corporation (PADC), a small federal government agency involved in the development of Pennsylvania Avenue and the original RFP for construction of the Ronald Reagan International Trade Building, which houses a variety of federal offices. Since EPA was going to be housed in the Ronald Reagan Building, Cathy's experience at PADC and the Ronald Reagan Building led her to accepting a position at EPA's New Headquarters Project.



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EPP in Practice

The *EPP Update* is highlighting a variety of paper types that EPA has determined to have certain positive environmental attributes. The paper choice for this issue is *Vanguard Eco Blend*. Look to future issues of the *EPP Update* to highlight additional paper types.

Hemp Paper Is an Environmental Choice

This EPP Update is printed on Vanguard Eco Blend paper, developed by the Living Tree Paper Company. The paper is 100 percent processed chlorine-free (PCF), which helps reduce toxic dioxin and other persistent organic pollutants that are released into the environment.

The paper also contains 100 percent recycled content, which means no virgin wood (i.e., wood from cut trees) was used to produce the paper. Instead, the paper is produced using 25 percent hemp—which requires no wood or paper resources—and 75 percent postconsumer fiber. A similar product, Vanguard Recycled Plus, uses 10 percent hemp and 90 percent postconsumer waste and is a bright white color. All Living Tree papers use chlorine-free resources and postconsumer waste fibers, supporting the market for recycled paper and helping to reduce overall wood consumption.

For further information on Vanguard Eco Blend or other Living Tree papers, contact the Living Tree Paper Company at 800 309-2974, or visit the company's Web site at <www.livingtreepaper.com>.

EPA must not only comply with the Executive Order at its own facilities, but also has specific management and oversight responsibilities to assist other federal organizations in complying with the Order. In that role, EPA encourages the use of EMSs that focus on improved environmental performance and compliance, as well as pollution prevention and system performance. EMSs provide a framework for managing environmental responsibilities, including regulatory compliance. By improving overall environmental performance and putting more emphasis on pollution prevention and continuous improvement, EMSs also can help organizations move beyond compliance.

Purchasing decisions can have a significant impact on an organization's environmental performance and, thus, the EMS's success. EPA maintains a leadership role in supporting environmentally preferable purchasing and practices. Environmentally preferable products may have a variety of positive attributes—such as reducing the amount of virgin resources used, diverting materials from landfills, conserving energy and water, and generating fewer emissions during manufacture or use of the product. The benefits of purchasing environmentally preferable products become even more apparent to an organization implementing an EMS.

EPA's leadership role in promoting environmentally preferable purchasing also encourages other agencies to explore EMSs. The Interagency Work Group, chaired by Will Garvey, with EPA's Office of Federal Facility Enforcement, is responsible for assisting other federal agencies with EMSs by holding workshops and training sessions. According to Garvey, agencies across the federal community are becoming more aware of the EMS program—and the benefits it can provide—and are engaging in the planning process.

EPP—Environmentally Preferable Partnerships

EPA's Environmentally Preferable Purchasing program is partnering with the National Park Service (NPS) in a new initiative to help green our national parks. The purpose of this new partnership is to integrate green purchasing into our parks through a series of workshops that NPS is developing.

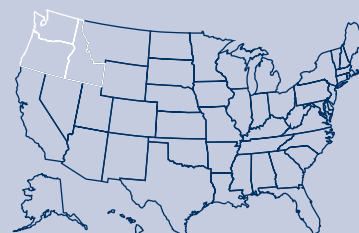
NPS has recently established 20 parks as Centers for Environmental Innovation (CEI) to advance the concept of sustainability. These will be park areas where research, development, and appreciation of sus-

A number of EPA offices have shared their experiences in incorporating EPP guidelines into their EMSs. Two reports from regions follow:

Region 10: Seattle, Washington

Officials have been developing a plan for setting up an EMS in EPA Region 10. The team has been working to define the nature and the scope of an EMS, as well as analyzing the potential for success. Region 10 already has made significant steps to minimize the environmental impacts associated with its internal purchases, which include computers and other office equipment, furniture, office supplies, and energy. Integrating all these pieces into an EMS allows the Region to comply with E.O. 13148 while increasing awareness of the sustainable practices and goals for future environmental impact reductions.

For more information about the Region 10 EMS, contact Bill Glasser with Region 10 at 206 553-7215 or <glasser.william@epa.gov>, or the new EMS Coordinator in Region 10, Clark Gaulding, at 206 553-1849 or <gaulding.clark@epa.gov>.

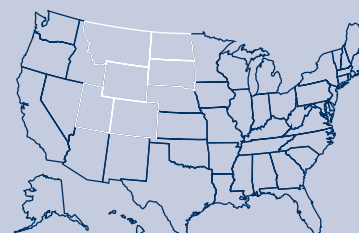


Region 8: Denver, Colorado

EPA's Region 8 also is designing an EMS. Representatives from each Assistant Regional Administrator's office formed a team and began holding meetings in Fall 2001. The region first hired a contractor for implementation support during the first 5 to 6 months of the project. Region 8 had already established some purchasing practices to reduce the environmental impacts of products and services used by employees.

The team identified areas for environmental impact analysis, including purchasing computers and related hardware; energy and water use; grants and contracts; meetings and conferences; and lunchrooms. The region's next step is identifying specific project ideas within these general categories. According to Dianne Thiel of Region 8, division offices in Region 8 will be able to use the information gathered during the EMS planning stages to help accomplish their missions. In addition, divisions with a specific need in mind can develop their own projects and contribute their information to the regional EMS.

For more information about the Region 8 EMS, contact Marie Zanowick with Region 8 at 303 312-6403 or <zanowick.marie@epa.gov>.



tainable practices occur and will serve as catalysts to teach and inspire people with concepts and values of sustainability. One of the key expectations of these CEI parks is that they will be showcases for environmentally preferable products and practices. CEIs will focus on educating staff and working with park partners to purchase more environmentally preferable products.

A key element of the sustainability training workshops is to demonstrate to park visitors, staff, and managers that environmentally preferable purchasing is a tool to achieve their sustainability goals. EPA's role in this

partnership will be to work directly with these parks to identify the types of products and services that will improve parks' resource stewardship capacity. The first workshop will be piloted at Big Cypress National Preserve in Florida March 26-27, 2002. NPS hopes that the partnership will expand to include other NPS-EPA opportunities that exist in programs such as Green Lights and Energy Star. For more information, please contact Shawn Norton at the National Park Service at 202 565-1260 or Julie Shannon at EPA at 202 564-8834.

EPP Supplements Its Suite of Tools with Product-Specific Purchasing Guides

**For more information,
contact EPA's Alison
Kinn at 202 564-8859
or by e-mail at
<kinn.alison@epa.gov>.**

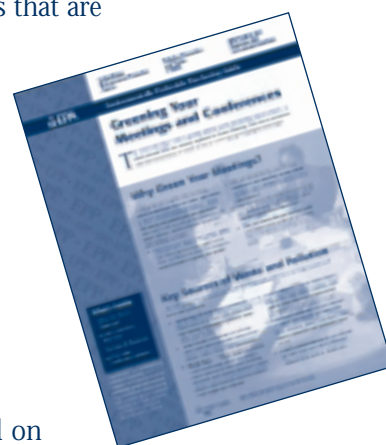
Government purchasers looking to procure “green” goods and services have a new resource at their disposal. EPA has recently produced a series of purchasing guides covering the following product and service categories: food service-ware, copiers, cleaners, carpets, electronics, and meetings. These “one-stop shops” for green purchasing information describe the challenges, successes, and resources associated with each product or service, focusing on how to incorporate environmental considerations into purchasing decisions. Although the guides have been developed with government purchasers in mind, they may be useful to anyone who wants to buy greener products for their office or household.

Each guide offers a product-specific education about environmental impacts of purchasing decisions. For example, when buying food service-ware, the green purchaser should consider products made from renewable resources, like agricultural waste; when buying copiers, the purchaser should look for a variety of energy- and paper-saving options currently offered by a number of manufacturers. The “Success Stories” section of each guide highlights how various government agencies have identified and purchased environmentally preferable products. The “Contacts and Resources” section will lead purchasers to groups defining what makes a certain product green and to organizations that are successfully practicing EPP.

The six, 6-page guides are available in an easy-to-use format on the EPP Program Web site at <www.epa.gov/oppt/epp>, or you may order hard copies of these colorful publica-

tions by contacting the Pollution Prevention Information Clearinghouse at 202 260-1023.

In the future, EPA expects to produce additional guides on other products, including paper, and will refine the content, if necessary, based on users’ response to this initial set. Let us know what you think!



Three-Day Conference Will Focus on Training Green Purchasers

The Center for a New American Dream, a nonprofit organization dedicated to helping Americans change the way they consume to help protect the environment, and TerraChoice, the contractor supporting Canada's eco-labeling program, are co-hosting an environmental purchasing conference April 22 to 25, 2002, in Philadelphia, Pennsylvania. The conference, which will be held at the Sheraton Rittenhouse, one of the greenest hotels in the United States, is open to government purchasing officials and private sector companies interested in increasing their environmentally preferable purchasing.

The conference is the first of its kind to focus on the needs of government and other institutional purchasers since EPA's 1997 EPP conference in Baltimore, Maryland. The conference will give participants the opportunity to learn about new EPP tools and strategies, as well as provide information on a wider variety of products and services that are now available. It also will give purchasers the opportunity to meet with others to compare notes about progress made and issues they're struggling with and provide a forum for them to work collaboratively and share information about green manufacturers and vendors.

The Center also has been sponsoring a series of free bimonthly conference calls for purchasers that focus on a variety of green purchasing topics. The first two calls addressed buying environmentally preferable cleaning products (October

and paper (December), and each included more than 100 participants from more than 30 states. Each call features product experts and government purchasers who have recently participated in green purchasing programs. Conference call participants receive a PowerPoint presentation when they register, so they can follow along with the speakers during the call. Future calls will cover energy efficiency and energy purchases, integrated pest management, paint, carpet, eco-labels, and other related topics.

For additional information on the conference or a schedule of upcoming conference calls, visit the Center's Web site at <www.newdream.org/procure>, or contact Scot Case at the Center for a New American Dream at 610 373-7703, or by e-mail at <scot@newdream.org>.



Federal Government Electronics

The MOU, presentations, and draft action plans from this forum are available on line for review and comment at www.deer2.com/stewardship.html.



To reduce the environmental impacts associated with government use and disposal of electronic equipment, a number of federal agencies recently signed a Memorandum of Understanding (MOU) to address this issue. Although individual federal agencies have made efforts to reduce this waste stream, such as favoring purchases of environmentally preferable and energy-efficient equipment, the MOU outlines ways agencies can build a more efficient infrastructure within the entire federal government for purchasing and disposing of electronic products.

The White House Task Force on Recycling, U.S. Postal Service, the Departments of Defense, Energy, and Interior, EPA, and the Council for Environmental Quality all signed the MOU on "Improving Environmental Management of Electronic Assets." The administration will work to sign up more agencies and is soliciting input from other public and private sector stakeholders. Electronic products covered by the MOU include computers and monitors, fax machines, phones, and other devices used in military and scientific applications, communications, and information systems.

The Federal Government Electronics Stewardship Forum held in October (see sidebar) was an opportunity to gather input from stakeholders on the proposed action plan for the MOU participants, as well as get feedback on an issues paper. The purpose of the Action Plan is to identify the goals, objectives, and strategies the MOU parties will commit to in order to reduce the overall environmen-

"Promising Practices" Will Guide You to EPP Success

Competitive bidding and contract processes often hinder agencies from buying environmentally preferable products. Many agencies realize the importance of environmentally preferable purchasing but question how they can apply it to their current purchasing process. To help educate federal purchasers, EPA's EPP program, showcases concrete examples of green purchasing success stories in its "Promising Practices Guide," available online at www.epa.gov/oppt/epp/ppg.

Distinct from other tools on the EPP Web site, the Promising Practices Guide

not only illustrates that environmentally preferable purchasing is possible, but also outlines the steps pioneers have taken to make green purchasing decisions. For example, the Guide shows how the Department of Interior (DOI) wrote EPP criteria into a solicitation for its new custodial contractor, to ensure use of environmentally sound cleaning products and to provide a safe, toxic-free working environment for janitors. Consequently, environmental preferability was a significant factor in the selection of the contractor, and DOI included "greening" language in the final contract.

Stewardship Forum

tal and energy impacts of using and disposing of electronics assets across the government. The two main objectives identified in the action plan are:

- Develop a government-wide strategy for managing the electronics waste stream; and,
- Promote growth of the infrastructure for the use, de-manufacturing, and recycling of obsolete electronic equipment.

At the forum, the White House Council on Environmental Quality Chairman Jim Connaughton underscored the centrality of product stewardship in the Administration's environmental policy. "We have the opportunity to continue building on the successes of the last [several] years, to continue to set the example for the world in terms of the kinds of stewardship practices and forward thinking about how we utilize all the assets that the federal government brings to its disposal in the service of the public," he said.

In October 2001, the Federal Government Electronics Stewardship Forum was held in Arlington, Virginia. The forum was established by the workgroup created under the MOU on "Improving Environmental Management of Electronic Assets." Attendees, including federal chief information officers and environmental and procurement professionals, gathered to identify issues and make recommendations that federal agencies can use to develop a government-wide strategy to implement environmentally preferable and energy-efficient management practices and reduce the economic and lifecycle costs of electronic equipment.

The forum organizers identified five areas to consider as a government-wide strategy is developed:

1. Facilitating the procurement of greener electronics.
2. Ensuring efficient use/management of electronics.
3. Ensuring proper management of electronic products through recycling and/or disposal.
4. Overcoming barriers and seeking opportunities in the regulatory arena.
5. Determining the important components needed for a government-wide strategy.

Many of the Guide's success stories include on-line contract language with the exact specifications used to achieve results. In addition, the primary contacts, lessons learned, and links to additional information also are available for those with further questions. This combination of tools will enable agencies to embark on the EPP journey with replicable models that can be tailored to their specific needs.

To date, the Promising Practices Guide includes 16 success stories, categorized by both agency and product category. As the guide evolves, it will

feature additional resources, including relevant Federal Acquisition Regulations citations and requirements and information on which environmental concerns should be examined at each step of the purchasing process. More success stories are on the way—if you have any of your own that the EPP Program should consider adding, contact EPA at <epp.pilot@epa.gov>.



EPA Grants Focus on EPP

EPA recently awarded three grants to support other organizations' environmentally preferable purchasing efforts. The grants aim to boost markets for "greener" products and services.

Foundation Helps Make Meetings Greener



EPA awarded a grant to the Oceans Blue Foundation to develop a Web-based tool to help meeting planners and others incorporate environmental considerations when organizing conferences and meetings. The Web tool will be market-tested in spring 2002, with a launch tentatively scheduled for July 2002. The foundation is a Canadian nonprofit that works to conserve marine and terrestrial environments by promoting environmentally responsible tourism and developing best-practice standards for all sectors of the tourism industry.

The purpose of the Web tool is to tell professional meeting planners, service providers, and the public about the environmental issues they should consider when planning meetings and events. With a user-friendly and interactive design, the tool will help users make environmentally sound choices when planning meetings.

"Meeting industry professionals, whether they be planners or suppliers, need the tools to be able to make appropriate decisions about how to minimize the impacts of their activities on the environment. This Web tool will provide them with easy, accessible guidelines and information to do just that," said Julie Shannon, Branch Chief of EPA's Prevention Integration Branch, Pollution Prevention Division.

For more information on Blue and Green Meetings, visit the Oceans Blue Web site at <www.oceansblue.org>, or e-mail <bluegreenmeetings@oceansblue.org> for further updates on the project.

Hotels Looking for a Green Seal

As part of its Green Meetings Initiative, EPA has awarded a grant to Green Seal to certify five Washington, D.C.-area hotels. Green Seal will evaluate hotels on their water and energy efficiency, fresh water usage, wastewater treatment, hazardous materials management, and environmentally preferable purchasing. The grant allows Green Seal to conduct the audits free of charge to the hotels. Green Seal plans to send an informational packet outlining the program to hotels, asking them if they would like to have their facility audited and certified. Green Seal's team of experts will evaluate the first five hotels to respond.



The goal is to market the District of Columbia as the first area to offer environmentally responsible lodging facilities and to grow the market for green hotel services. The program is supported by the government of the District of Columbia, select federal agencies, and corporations that will provide the buying power to increase the demand for green hotels. Government travelers and visitors will be encouraged to stay and hold their meetings in certified hotels. This, in turn, will help motivate others in the hotel industry to green their services—especially since business travel is a major source of revenue for the industry. In 2000, U.S. business travel expenditures totaled \$185 billion, with \$37 billion spent on accommodations.

For more information on Green Seal's Greening the Lodging Industry campaign, visit <www.greenseal.org/greeninglodge.htm>.

Nonprofit To Evaluate Environmental Paper Market

Conservatree, a nonprofit organization that works to grow the market for environmental papers, has received a grant from EPA to conduct a study on the obstacles slowing market development for these papers. The Recycled Paper Coalition will collaborate with Conservatree in researching issues hampering market development. The project will add collaborators with other areas of expertise as it progresses.

Conservatree will use a list of nearly 100 questions on issues and controversies within the environmental paper field to begin gathering perspectives from all interested and involved parties. "We want to talk to everyone involved in manufacturing, marketing, buying, and using environmental papers and hear as many different viewpoints as possible," said Susan Kinsella, executive director at Conservatree. "We hope to help make it more possible for people with differences of opinion to work together on achieving an environmentally and economically sustainable paper production system for the future."

More information is available at <www.conservatree.com/learn/ListenSnapshot/Listen.shtml>.



Profile < Continued from Page 1 >

At EPA, she spent 10 years working on EPA's New Headquarters Project, helping with the transition of EPA office space from Waterside Mall, where the agency had been housed since its inception, and other satellite buildings, to the new facilities in the Ronald Reagan Building and adjacent Ariel Rios Building and ICC/Customs (EPA East and West) Buildings. During that time, she worked with General Services Administration (GSA) contractors to make sure that the construction contracts met EPA's sustainability goals.

Cathy began pursuing her environmental interests in her early career as an architect. "My original focus was on historic preservation, but my interest in conservation issues flowed naturally from there," she said. "It was a natural progression, and for me it seemed like the right thing to do."

In May 2001, Cathy moved to EPA's Sustainable Facilities Practices Branch, where she still works on sustainability issues, but now in a national capacity. In her new post, Cathy examines how to apply the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED™) rating system to EPA facilities across the United States.

Cathy also is coordinating an effort through GSA to green the proposed EPA onsite cafeteria in the ICC Building and concession stands throughout the headquarters complex. The plan is to set up a program similar to the one adopted by the U.S. Department of the Interior, which incorporates several environmentally preferable products and practices.

EPA's EPP program extends a special thanks to Cathy for her continued efforts in sustainable construction and design.

Using Biobased Lubricants at Hydroelectric

Recent laboratory studies undertaken by the U.S. Department of Interior (DOI) show the superior performance of biobased lubricants under extreme pressure conditions at hydroelectric power facilities. These “green” lubricants can perform as well as or better than traditional lubricants, without the negative environmental impacts.

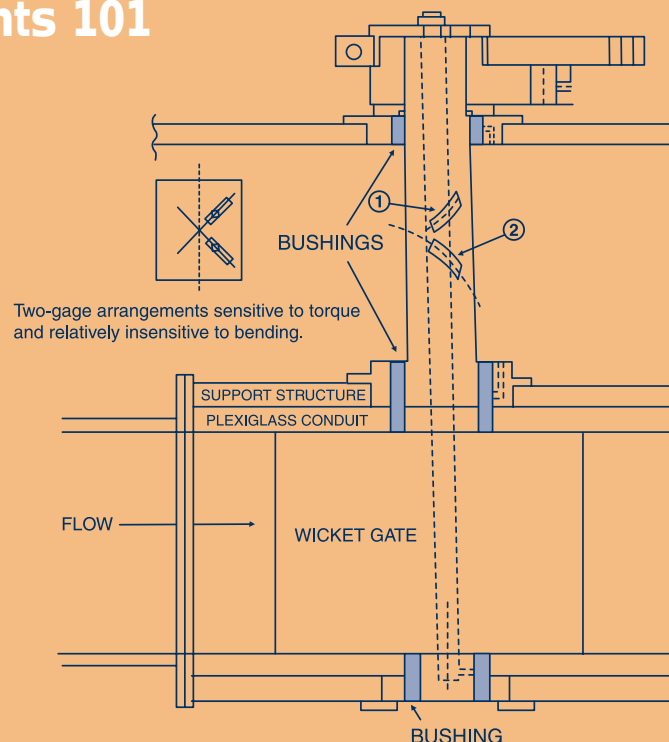
DOI's Bureau of Reclamation operates 58 hydroelectric power plants in the Western United States. DOI is concerned about the environmental impact of grease released during the production of energy. Some wicket gate grease “washes out” from the turbine with the discharge water. Potential harm to aquatic life is a concern, as the petroleum hydrocarbons in traditional greases biodegrade fairly slowly and are highly toxic to aquatic species. Also, some petroleum greases contain toxic metals that can accumulate in the food chain.

In 1994, staff at Parker Dam in California began investigating the use of alternative greases in wicket gates. Parker Dam staff found that food-grade (i.e., safe enough to be in contact with food) petroleum grease from Lubrication Engineers, Inc. provided excellent lubrication qualities and resisted washout. Called Quinplex 4024, the grease is rated as a low-hazard material to human health, though complete information on its biodegradability and aquatic toxicity was lacking when it was tested. It performed well at Parker Dam from 1994 to 2000, showing exceptional resistance to washout.

During this period, Parker Dam staff examined information from the Bureau of Reclamation's Water Resources Research Laboratory (WRRL) in Denver, Colorado, as it also was evaluating several alternative lubricants. WRRL compared five alternative greases against a standard lithi-

Hydroelectric Power Plants 101

A hydroelectric plant passes water through a series of louvers, called “wicket gates,” to a turbine that powers an electric generator. Opening and closing the wicket gates regulates the flow of water to the turbine. Greases lubricate the wicket gate bushings [see illustration]. These greases must function under difficult-use conditions, including frequent opening and closing of the wicket gates and high pressures on the bushings. The greases also must provide sufficient protection to maximize the service life of the wicket gate bushings.



Power Facilities

um-petroleum grease. The five greases tested included three food-grade petroleum greases similar to the grease used at Parker Dam, a synthetic ester-based grease, and a canola-based grease.

The tests were performed on a scale model of a prototype wicket gate at the Mt. Elbert Power Plant near Leadville, Colorado. The model gate operated under conditions that simulated the most severe duty cycle experienced by a wicket gate. WRRL determined lubrication efficiency by measuring the friction torque during gate opening and closing. The performance of the lithium-based grease was defined as a good lubrication rating of 100 percent.

Synthetic ester-based and canola-based greases, with lubrication ratings of 93 percent and 105 percent, respectively, performed much better than the food-grade petroleum greases in these tests. The average rating for the three food-grade greases was 55 percent. Environmental data on these and similar lubricants are available from manufacturers. After analyzing its performance under extreme-wear conditions, WRRL recommended that Parker Dam switch to a canola-based wicket gate lubricant.

Parker Dam switched to a canola-based grease—Cor-Tek VSG—made by Utility Service Associates in 2000, and staff at the dam are satisfied with the performance of this grease, although some are concerned that VSG's apparently higher washout factor could compromise its superior wear characteristics. Utility Service Associates reports that other facilities using VSG are using less grease, indicating greater



resistance to washout. A more complete understanding of washout performance under various use conditions would provide valuable information to potential users of VSG and similar products.

Data on biodegradability and aquatic toxicity supplied by Utility Service Associates show VSG's environmentally preferable characteristics:

- VSG demonstrated more than 80 percent biodegradation in a 21-day test (meeting the German Blue Angel eco-label criteria for "ready biodegradability").
- VSG was virtually non-toxic to rainbow trout and *Daphnia magna* (a water flea), with a 96-hr LC50 value in trout of greater than 93cc/l and a 48-hr LC50 in *Daphnia* of greater than 1,000 ppm.

For more information, contact Jim Darr of EPA at 202 564-8841 or <darr.james@epa.gov>. Details of the studies done by the Bureau of Reclamation are at <www.usbr.gov/wmr>.



Calling All Private Sector EPP Pioneers!

**Don't let your EPP efforts go unnoticed—
tell your success story in a new EPA report!**

Due to the popularity of the June 1999 report, *Private Sector Pioneers*, available on the Web at www.epa.gov/oppt/epp/pdfs/privsect.pdf, EPA's EPP Program is collecting information for a new report highlighting the efforts of companies to "buy green" and "sell green." The 1999 report showed how 18 companies were expanding the market for green products, preventing tremendous amounts of pollution, and saving millions of dollars, all as a result of considering the environment, along with price and performance, when making purchasing decisions.

Great strides have occurred in the last 2½ years, so we are excited to hear how you are contributing to the green purchasing trend. If you are interested in sharing your EPP experiences, please contact the EPP Program at pilot.epp@epa.gov.



Pollution Prevention and Toxics
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