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an environmental bulletin for federal facilities

Feds Embrace Pollution Prevention

A familiar adage asserts, "an ounce of prevention is worth a pound of cure." This certainly holds true for federal agencies which use **pollution prevention (P2) and environmental stewardship** strategies in their facility operations.

The federal government is the nation's largest consumer of raw materials, power, water and other products, and also generates harmful wastes which may adversely impact people and the environment. The increasing costs and comprehensive regulatory requirements for managing waste create incentives for federal facilities to reduce the amount of hazardous materials used and wastes generated.

Federal agencies have reduced their environmental impacts and costs associated with managing wastes by incorporating P2 into facility operations and their environmental management systems. Some activities are voluntary, but many are required by statute, regulation or Executive Order.

Most recently, Executive Order 13148 requires federal agencies to "comply with environmental regulations by establishing and implementing...policies that emphasize pollution prevention as a means to both achieve and maintain environmental compliance." Pollution prevention therefore, can also be an effective compliance strategy by eliminating or reducing pollution to begin with, rather than having to store, treat, or otherwise deal with it after it is created.

For instance, federal facilities which minimize or eliminate RCRA waste will not be responsible for treating, transporting, and storing that waste. A facility that avoids using chemicals found on the Toxic Release Inventory will have nothing to report to EPA. By implementing energy saving strategies, a facility can lower its electric bill and reduce pollution caused by power generation. Pollution prevention strategies are endless, but the overall benefit can be summed up as less time, energy, and money spent on reporting, storing, and treating pollution and waste.

The federal government is also in a unique position to demonstrate leadership by embracing and employing P2 and environmentally sustainable strategies in facility operations. By purchasing "green" (less toxic and environmentally "friendly" products and materials), the government creates demand for goods and products with recycled content standards in its procurement contracts.

P2 is a sound strategy to help facilities avoid pollution control costs, reduce environmental liability, and improve production efficiency. In the last few years, federal agencies significantly increased their P2 and environmental stewardship activities, cultivated new P2 partnerships, and continue to look for new ways to improve efficiency, reduce waste, and build P2 strategies into facility operation. We highlight a few of these activities in this issue, and look forward to hearing about more innovative practices in the future.

Inside

3 EMS and P2
6 Partnerships
9 Green Procurement
10 Healthcare
11 E-Cycling
13 Green/Alternative Power
14 P2
20 In the Spotlight
23 Selected P2 Internet Resources
24 Post-ROD Issues; Enforcement News
26 In Brief
27 Federal Agency Compliance Tracking System (FACTS)
28 Upcoming Events

Environmental Spotlight

PARTNERING FOR POLLUTION PREVENTION

By Ken Zarker, Chair, National Pollution Prevention Roundtable

Twenty years ago, the federal government helped popularize the idea that "pollution prevention pays" and is the path toward a more sustainable and secure environmental future. Today, more than ever, the federal government is in a leadership position to help maintain and foster the efforts of both public and private entities alike. Key to continued success of many pollution prevention programs is strong partnerships between federal, state and local governments, *Continued on* ***page 2***

ABOUT THIS ISSUE...

Several months ago we asked our federal facility partners, sister agencies, states and others to tell us about **pollution prevention (P2) and stewardship activities** being developed and implemented at federal facilities. We received many responses and this issue spotlights some of the innovative programs and practices employed throughout the federal government. We've featured a few pollution prevention and stewardship areas, including recycling, environmentally preferable purchasing, energy efficiency and alternatives, partnerships, and healthcare. Our goal is two-fold: to applaud and showcase some of the good work being done around the federal government; and promote and provide information to others interested in implementing similar programs or strategies at their facilities.

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ENVIRONMENTAL SPOTLIGHT
*Continued from **page 1***

community groups, industry and business.

As chair of the National Pollution Prevention Roundtable (NPPR), and P2 Section Manager of the Texas Commission on Environmental Quality, I've watched the genesis and growth of pollution prevention programs here in Texas, and also nationally. Many of these programs evolved from partnerships among a variety of groups, whose collective experience and dedication made impressive inroads integrating pollution prevention into facility and governmental operations.

Partnerships – especially those among governmental entities – may be even more critical now since many state and local programs are facing significant budget cuts and reductions to their core pollution prevention programs.

Some of the best opportunities to partner with federal facilities are through national and regional pollution prevention networks, such as NPPR. The Roundtable is the largest pollution prevention membership organization in the United States, and provides a national forum for promoting the development, implementation, and evaluation of efforts to avoid, eliminate, or reduce pollution at the source.

The Roundtable's membership includes state, local, tribal and federal governments, non-profit organizations, trade associations, academic institutions, private industry, small business development centers, and NIST-sponsored manufacturing extension programs. Public sector members, located in every state and internationally, operate programs that provide pollution prevention information and technical assistance to thousands of industrial, commercial, and agricultural facilities each year. This information helps many facilities reduce operational costs and improve environmental compliance. The result is improved efficiency, increased competitiveness, and a better environment.

Much of the Roundtable's work is done through workgroups and discussion groups. These groups focus on a variety of P2 issues and strategies, including P2 policy and program integration, research and technology transfer and innovation, education and training, and small business. Homeland security, energy efficiency, healthcare, and environmentally preferable purchasing are also specific focus areas for discussion groups.

In 2003, NPPR formed a Federal Facilities Discussion Group. The Federal Facilities Discussion Group is exploring ways to build closer relationships between federal facilities and P2 communities, better integrate P2 into environmental management systems, share best P2 practices among federal facilities, as well as develop and collaborate on P2 projects. I encourage environmental practitioners at federal facilities to personally get involved, and share your projects and innovations with your colleagues.

Federal facilities will be interested in the NPPR's most recent P2 Policy Paper on Homeland Security. This paper begins to define the relationship between pollution prevention and homeland security, explores roles the pollution prevention community can play in improving homeland security, and provides specific pollution prevention recommendations to the federal government, state agencies, industry, and other *Continued on **page 9***

The National Pollution Prevention Roundtable is the largest organization in the United States devoted solely to pollution prevention. The Roundtable promotes the development, implementation, and evaluation of efforts to avoid, eliminate, or reduce pollution at the source. For more information about the NPPR, and how you and your organization can get involved, visit **http://www.p2.org.** To learn more about the NPPR Federal Facilities Discussion Group, visit: **http://www.p2.org/federal**

The National Environmental Assistance Providers' Summit will be held April 17 - 22, 2004 in Baltimore, Md. For more information visit: http://www.p2.org/summit2004

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NATIONAL ENVIRONMENTAL ASSISTANCE SUMMIT:

Prevent Pollution, Achieve Compliance and Innovate for Environmental Results

The U.S. Environmental Protection Agency is co-sponsoring with the National Pollution Prevention Roundtable a spring conference entitled **"National Environmental Assistance Summit"** to be held April 19-22, 2004, in Baltimore, Md. The Summit will convene individuals who work in the environmental assistance arena. Industry, small business and trade association representatives are encouraged to attend and provide their perspectives on environmental assistance. Sessions will focus on pollution prevention, compliance assistance, environmental policy innovations, environmental management systems, sustainability and best practices. Three EPA Offices, (Compliance, Pollution Prevention and Toxics and the National Center for Environmental Innovation) have worked with the National Pollution Prevention Roundtable. The goal of the Summit is for members of the environmental assistance community — those who create, fund, deliver and receive it to learn from each other how best to improve environmental performance. **For more information or to register for the conference, go to: http://www.p2.org/summit2004.**

How is an EMS Like a Christmas Tree?

Over the last few months, I've come to realize that folks are always looking for understandable, day-to-day analogies to explain the environmental management system (EMS) concept. Years ago, when EMS was really coming on the American radar screen, I used the analogy, "An EMS is like a Christmas tree" to help explain an EMS. I'm resurrecting this analogy here and hope it helps.

A Recognizable Image

When someone says "Christmas tree", an image immediately comes to mind. Even though there are many variations of tree, differences are small enough that an overall basic image comes to mind.

When one says, "EMS", a particular approach to dealing with environmental issues should come to mind, especially when using a recognizable model such as ISO 14001. Actually, ISO 14001 elements are so well defined and used in the only real globally recognized model, that saying "ISO 14001" is equivalent to naming the tree a Douglas Fir.

A Simple Framework

A Christmas tree itself is rather plain and generic, and without adornment serves no real purpose. You would be hard pressed to find a home or business that went through the trouble of getting a tree and left it as is. On the other hand, the tree is the essential infrastructure for ornaments and decorations, making it unique to the home. Although these adornments are what make the home festive, and add the most value to the tree, without the tree itself, there is only a messy, unorganized pile of ornaments.

The EMS, then is the framework upon which a facility builds its environmental management efforts. Although the EMS model is the framework, it needs "ornaments" to serve the organization. Ornaments in this context are aspects, objectives, procedures, etc., – basic EMS elements. As with the tree, without the framework, the organization runs the risk of having a messy, unorganized pile of environmental programs and efforts.

A commitment to preventing pollution is a cornerstone of an effective EMS and should be reflected in an organization's policy, objectives and other EMS elements.

Ornaments vary from basic, typical items such as lights and garland, to more specialty and unique items such as special ornaments and keepsakes. In an EMS, there are basic elements (compliance procedures, operational controls) and specialty items such as energy reduction objectives or NEPA applications. The degree of complexity is driven by the organization's goals and character more so than the tree structure itself.

Performance vs. Process

The best decorated tree does not guarantee a festive home, but it sure goes a long way to helping that cause. And, without ornaments, the tree doesn't have a chance to succeed in this purpose.

An EMS will not guarantee improved environmental performance, but it will certainly help the facility's chances. And, without using the EMS to support activities and meet specific goals, it is nothing more than a framework.

Lessons Learned

So what does this analogy tell us?

Without "personalizing" and actually adding substance to and nurturing the EMS model chosen, an organization cannot expect notable performance improvements.

If we want the EMS to do something specific, we need to build those requirements into the elements. For example, if we want a tree to fit a colonial theme, it is up to us to add the right ornaments. If we want an EMS to ensure proactive community involvement, it has to be built in as a specific requirement. The EMS element prompt for an external communication procedure alone will not do that.

The EMS infrastructure, even when "decorated", does not guarantee performance, but it surely goes a long way in that direction. It is certainly better than having nothing at all. But, unlike a tree, if properly nurtured, the EMS, hopefully, will not die every year!

Ed Pinero, Office of the Federal Environmental Executive

WE NEED YOUR INPUT!

EPA, in conjunction with the Executive Order 13148 Inter-Agency Workgroup, is developing a tool to assist federal facilities incorporate green purchasing into the development and implementation of their environmental management system (EMS). Many federal facilities are currently either developing or implementing their EMS in anticipation of the December 2005 deadline set by Executive Order 13148. These activities are an excellent opportunity to assist in EMS development by providing information on how green purchasing programs relate to the various elements of the EMS framework. EPA expects this effort to result in: 1) greater interest by federal facilities in including green purchasing in their EMS; 2) EMS-based management tools that can help federal facilities maximize benefits of their green purchasing program; 3) case studies showing how federal facilities are incorporating green purchasing into their EMS.

The last item is where you can help. EPA would like to learn how your facility integrated green purchasing into its EMS. If you have examples and case studies about how your facility did this, please send them directly to EPA contractor Tom Wallace at: wallacet@saic.com. For more information, please contact: Holly Elwood, U.S. EPA at: elwood.holly@epa.gov, (202) 564-8854; Carole Bell, SAIC, EPA Contractor at: bellca@saic.com, (401) 848-4756; or Tom Wallace (434) 293-8728.

EMS and P2 Efforts Change Regulatory Status at Defense Supply Center, Richmond

The Defense Supply Center, Richmond's (DSCR) environmental management system (EMS) not only ensures compliance with Executive Order 13148, but also enhances mission performance, reduces pollution, and underscores its commitment to environmental stewardship. DSCR's P2 efforts also impacted their regulatory compliance requirements under the Clean Air Act.

DSCR's P2 efforts also impacted their regulatory compliance requirements under the Clean Air Act.

DSCR is a 600-acre warehouse and office facility located just south of Richmond, Va. Residential communities surround the Center. As part of the Defense Logistics Agency, DSCR procures, stores, and distributes aviation spare parts for the Department of Defense. DSCR also manages the Ozone Depleting Substances reserve and hazardous property storage.

In past years, 58 commercial oil fired boilers used at DSCR emitted 100 tons of sulfur dioxide, and were regulated under Title V of the Clean Air Act (CAA). Sulfur dioxide is linked to acid rain, a potential detriment to local, state, and regional watersheds and forests.

DSCR's P2 efforts shifted them from a major source subject to CAA Title V permit requirements, into the CAA's Synthetic Minor category. As a synthetic minor, DSCR agreed to limit and control the number of hours it ran its boilers and generators. Emissions from the same boilers were reduced to slightly over seven tons.

This reduction in air emissions has allowed the Virginia Department of Environmental Quality (VADEQ) to issue DSCR one operating permit to cover the operation of all the boilers, instead of the multiple ones previously needed.

DSCR was able to achieve these results by retrofitting the boilers to burn #2 fuel oil and natural gas, both having a lower sulfur content than the previous fuel source. Also, boiler operation was reviewed and modernized to ensure maximum operating efficiencies. The compliant control and operation of these boilers are part of DSCR's evolving EMS.

The Center's pollution prevention efforts have benefited the local and regional environment and its communities, saved taxpayer dollars by saving operational and material costs, and freed both DSCR and VADEQ to spend time and effort on other more pressing environmental and mission related matters. A win-win all around.

Questions about this initiative may be addressed to Jimmy Parrish, DSCR Environmental Office, 804-279-6949, Jimmy.Parrish@dla.mil.

San Antonio Missions Receive ISO Certification

San Antonio Missions National Historical Park recently became the first unit of the Department of Interior's National Park System (NPS) to have an environmental management system (EMS) in place in accordance with Executive Order 13148, and registered under the ISO 14001.

San Antonio Missions has been involved in environmental protection and committed considerable time and resources to correct regulatory problems found in park-wide audits. In 2001, the park volunteered to participate in an EPA environmental management review. Joyce Stubblefield of EPA Region 6 served as the on-site coordinator for the review. The resulting report offered several recommendations including the selection of an EMS framework for the park. After consultations with Dr. Michael Schene, Environmental Officer for the NPS Intermountain Region, the ISO 14001 standard was adopted to guide future park EMS efforts.

Dr. Schene and a contractor assisted the park in the implementation process. A Compliance Improvement Management System (CIMS) multi-disciplinary team consisting of Dan Steed, Chief Ranger and team leader; Gloria Gonzales, Administrative Officer; Elizabeth Dupree, Chief of Interpretation; David Vekasy, Chief of Maintenance; Michael Johnson, Acting Chief of Professional Services; and Kurt Schoenberger, Park Safety Advisor was established. Initially, an Environmental Policy Statement was developed and signed by Superintendent Stephen E. Whitesell and the members of the CIMS Team. This policy guides all environmental initiatives in the park and was distributed to all employees, partners, and interested parties. San Antonio Missions was certified as ISO 14001 compliant on June 5, 2003.

This past August, Federal Environmental Executive John Howard visited the park with members of his staff and EPA representatives to learn more about the park's EMS, its importance to protecting human health and the environment, and its role in improving overall park management.

For additional information contact Joyce Stubblefield at: stubblefield.joyce@epa.gov.

P2 at Brookhaven National Laboratory

Since Brookhaven National Laboratory initiated its pollution prevention (P2) program at its Upton, Long Island site in 1991, it has saved money and reduced waste from its routine laboratory operations by 70 percent. Its environmental stewardship policy, the keystone of Brookhaven's environmental management system, integrates P2 into all work planning. In 2001, Brookhaven became the first national laboratory to be ISO 14001 certified.

Brookhaven's P2 Council is a lab-level committee, and is essential in the development, management, and promotion of laboratory-wide P2 initiatives and waste minimization policies and programs. It is chaired by a P2 Coordinator, and has representatives from each of Brookhaven's nine directorates. Top-level management participates in P2 decision-making. This broad, participatory approach has resulted in improved awareness and participation by all employees from a variety of offices. Participation of scientific staff especially has increased.

The P2 Council also manages Brookhaven's Return-On-Investment (ROI) program, which is key to demonstrating continued improvement of Brookhaven's EMS. Annually, the Council reviews and ranks lab-wide P2 proposals according to established criteria and funding allocations. The criteria support Laboratory goals, regulatory requirements, and DOE orders. Key criteria include: 1) reduction or elimination of priority waste streams; 2) toxics-use reduction; and 3) good return on invested funds as measured by the payback period. Each year, the criteria are reviewed and modified as necessary. Proposals are submitted on a standard form, which allows comparison of different P2 proposals, and requires cost-savings calculated using a conservative payback period method.

Cost savings are starting to accumulate. In FY '01, Brookhaven funded seven P2 ROI projects, investing approximately $113,000. The annual cost savings is calculated at $155,000. In FY '02, the P2 Council allocated approximately $120,000, with the ROI calculated at $268,000, and an average payback period of five months. In FY '03, P2 projects cost $96,055 to implement, but savings are estimated to be $88,069 per year.

P2 programs have included projects to improve facility operations (such as retrofitting hydraulic hoses with steel-braided hoses and using vegetable-based hydraulic oils), and aid scientific researchers (such as the purchase of a digital-imaging system to minimize the generation of hazardous, industrial and radioactive wastes).

In FY '03, projects included the installation of double-walled oil-storage tanks to replace 55-gallon drums, which permitted the purchase of recycled oil for the Lab's fleet. The initial $4000 cost will have a payback period of one and a half years. Brookhaven's Medical Department is also using a sealing shroud to isolate cooling water from air in the Brookhaven Linac Isotope Producer exhaust system. The shroud is expected to reduce radioactive airborne emissions and lower off-site exposure. The project improves environmental compliance, lowers monitoring costs and has a payback period of approximately one year.

Brookhaven is a U.S. Department of Energy laboratory and conducts research in the physical, biomedical, and environmental sciences, as well as in energy technologies. It also builds and operates major facilities available to university, industrial, and government scientists.

For more information, please contact Lab staff: Peter Pohlot (631) 344-5660; George Goode (631) 344-4549; or John Selva (631) 344-4549; or visit the Lab's P2 Website at: **http://www.bnl.gov/esd/pollutionpreve/**

P2 Quicknotes

EPP TEAM TO CREATE MODULE FOR FEDERAL EMS

In accordance with Executive Order 13148, all federal facilities are required to have environmental management systems in place by December 2005. EPA's Environmentally Preferable Purchasing Team is developing a guide for federal agencies on how to integrate green purchasing into their EMSs. This guide will be posted on EPA's EPP and EMS Website and included in training provided to federal facilities by the Office of the Federal Environmental Executive. For more information on the guide or Federal EMS, please contact Holly Elwood at: elwood.holly@epa.gov or 202-564-8854.

P2 AND NATIONAL SECURITY

Homeland security is a national priority and what better way to achieve real security than to reduce or eliminate potentially harmful chemicals? A new P2Rx topic hub, produced by the Great Lakes Regional Pollution Prevention Roundtable, covers the what, why, and how pollution prevention projects within a facility add value to national and local security efforts. For more information please visit: **http://www.glrppr.org/hubs/toc.cfm?hub=505&subsec=7&nav=7**

EPA, DoD, and States Find Common Ground through Partnerships

Regional EPA offices are increasingly joining state regulators and military installations to form voluntary environmental partnerships, reinforcing the idea that working collaboratively can be more productive than working independently. Formal EPA-DoD-State partnership agreements with charters backed by state governors, regional officials and military installation commanders now exist in more than half the 50 states.

Designed to promote sustainability and pollution prevention as the best way to protect and conserve resources, partnerships pool ideas, best practices, lessons learned and sometimes even funds to address environmental problems. The partners agree by their charters to meet regularly and support the pollution prevention and sustainability missions of all participants.

Partnerships open communication among regulators, DoD and EPA in a collaborative, non-threatening way. They attract participation by senior decision-makers, leverage scarce resources by sharing funding, training and technical assistance, and recognize civilians, soldiers, sailors and airmen for their contributions to pollution prevention and environmental stewardship. Partnerships also help DoD installations develop EMSs that improve regulatory compliance, and reward environmental performance through state performance-based incentive programs.

Texas was among the first to charter a pollution prevention partnership with DoD and EPA in 1997 (see related article on TXEP on page 7). In July 2002, the Illinois/DoD P2 Partnership officially became an environmental partnership to reflect its expanded focus. The shift enables partners to discuss state environmental regulation and amendments early in the defining stage. In some cases, states ask for input from their environmental partners before they circulate drafts for wider public comment.

Formally chartered in 2000, the Virginia-EPA-DoD P2 Partnership has become a model for others considering their own state partnering arrangements. Maryland followed by signing its agreement with EPA and DoD in 2002. Pennsylvania and now the District of Columbia are planning formal agreements of their own.

In the Great Lakes Region, all six states in EPA Region 5 (Chicago) are part of DoD and EPA partnerships on various levels. All but Minnesota, without a large military presence, have formal partnership charters.

In addition to the nearly 30 states which have formal charters with DoD and EPA, other types of partnerships have enjoyed success. The Southeast Natural Resource Leaders Group (SENRLG), a regional partnership, is committed to resolving natural resource conservation and sustainability issues. A guiding SENRLG principle is to "ensure responsive, coordinated Federal processes and decision-making, thereby demonstrating a standard for 'good government' that produces better overall results for our citizens and their environment." SENRLG is a collaboration of regional federal environmental agency executives and regional DoD military service leaders in the southeast.

Continued on ***page 12***

DEFENSE ENVIRONMENTAL NETWORK AND INFORMATION EXCHANGE (DENIX)

DENIX is the central platform and information clearinghouse for environment, safety and occupational health (ESOH) news, information, policy, and guidance. Serving the worldwide greater Department of Defense (DoD) community, DENIX offers ESOH professionals a vast document library, a gateway to web-based environmental compliance tools, an interactive workgroup environment, a variety of groupware tools and an active membership community numbering thousands. DENIX provides ESOH professionals an up-to-date, multi-functional resource to assist in preserving and protecting the natural environment, achieving greater energy efficiency, providing a safer and healthier work environment and meeting readiness and compliance needs of Congressional and DoD ESOH requirements. **Visit DENIX at: https://www.denix.osd.mil/**

The Texas Environmental Partnership: Where Purple is Green

The term *purple* refers to "joint-ness" or cooperation between military branches. When colors run together – blue (Air Force), green (Army), and brown (Navy) – it is said that purple is the result. The Texas Environmental Partnership (TXEP) is proud to be purple.

TXEP promotes environmental stewardship and enhances mission readiness through pollution prevention, reduction and conservation. Representatives from all DoD installations in Texas, and federal facilities such as NASA Johnson Space Center, Veterans Administration Hospitals, Strategic Petroleum Reserve, Pantex and others meet quarterly to discuss environmental issues and develop proactive joint strategies where possible. Critical to TXEP is membership of the Texas Commission on Environmental Quality (TCEQ) and EPA Region 6 in Dallas.

In 2002, the Texas Pollution Prevention Partnership (TXP3) expanded its mission to include environmental and compliance issues that might affect DoD installations and other federal facilities. TXP3's past efforts were rewarded with White House "Closing the Circle" and former Vice President Gore's "Hammer" awards. The TXEP was chartered in August 2002 as an extension of TXP3. Involvement and leadership from Texas, DoD and other federal facilities defines the Partnership by focusing on environmental performance and implementation. It is co-chaired by Israel Anderson (TCEQ) and Dr. Thom Rennie (Air Force Center for Environmental Excellence Central Region Environmental Office and DoD REC Region 6.)

While P2 remains a core focus of TXEP, EMSs, sustainability, encroachment, air and water quality, and natural and cultural resources are part of its holistic approach. Recently, TXEP formed two subgroups to address air and EMS implementation issues. The EMS group partners with TCEQ and the Multi-State Working Group on Environmental Management Systems to develop a performance-based approach to EMS.

This partnership has created training opportunities, developed a joint auditing strategy, and conducted mock EMS audits, which help installations meet their chosen EMS standard. More than 120 TXEP members and installation staff participated in TCEQ sponsored performance-based EMS training. Camp Mabry, Texas Army Guard and Naval Air Station, Corpus Christi participated in Texas EMS mock audits to both prepare for actual audits, and to train auditors.

This past October, TXEP member Fort Hood hosted an environmental summit where community leaders from regional governments, businesses and non-governmental organizations discussed how to balance training needs with habitat and environmental protection. In 2002, NASA Johnson Space Center partnered with TCEQ on a Consumer Pollution Prevention workshop. Attendees learned to change driving, energy consumption, and purchasing habits to lessen environmental impact, and save money – which ultimately saved $10,000, 200 kilowatt hours of energy, 124 gallons of gasoline, 3000 pounds of CO2, and reduced solid waste. The P2 program at Randolph Air Force Base, led by Michael Redfern, has achieved resource savings of $2.4 million, while diverting 38 percent of the base's waste.

P2 is a key to building strong and effective partnerships. The reductions and cost savings realized by a strong commitment to P2 programs increases the enthusiasm to tackle issues such as habitat protection and natural and cultural resources preservation. Perhaps these issues can also be addressed by understanding that there are both environmental and economic benefits involved in each.

For more information, please contact: Rob Borowski Clean Texas Coordinator, TCEQ, rborowsk@tceq.state.tx.us; or Dr. Thomas Rennie, AFCEE Central Region Environmental Office, thomas.rennie@brooks.af.mil

JOINT SERVICE P2 OPPORTUNITY HANDBOOK

The Joint Service P2 Opportunity Handbook identifies "off-the-shelf" P2 technologies, management practices, and process changes that reduce hazardous and solid waste. The handbook was prepared jointly by the Naval Facilities Engineering Service Center (NFESC), under the direction of the Office of the Chief of Naval Operations (CNO-N45) and the Naval Facilities Engineering Command (NAVFAC), the Air Force Center for Environmental Excellence (AFCEE), the Army Environmental Center (AEC), Headquarters Marine Corps (HQMC), the Defense Logistics Agency (DLA), and the Coast Guard (USCG).

There are more than 250 individual data sheets represented in 15 waste and emission areas, including air pollution, bio-based products, hazardous material and waste management, petroleum, oils, and lubricants, solid waste management, solvent alternatives, storm and waste water, and sustainable development. Each entry provides, among other details, an overview of the product and regulatory compliance impacts, suggested alternatives and their advantages and disadvantages, economic analysis of product usage, and vendor information.

This tool can be found at: **http://p2library.nfesc.navy.mil/p2_opportunity_handbook/introduction.html**

DoD-EPA Region 4 Partnership Opens Up Communication

EPA's Region 4 (Atlanta) comprises the southeastern states and has the largest concentration of military installations in the United States. It is the only EPA region where a DoD P2 partnership exists in every state, and to a great extent, installations and states rely on and benefit from these partnerships.

The DoD Region 4 P2 Partnership took form when the region's states, DoD facilities and EPA recognized each branch of the military was independently tackling P2 problems and looking for solutions which already existed. Coordinating efforts and sharing ideas was crucial.

Established in 2000, the partnership is a military and civilian working group focused on P2 and related issues. Representatives are from each military installation within the eight states of Region 4, Army and Air National Guard, Army Corps of Engineers, Army Reserves, Defense Logistics Agency, Air Force Center for Environmental Excellence, Army Southern Regional Environmental Office, Southern Region Naval Facilities Engineering Command, and Marine Corps Regional Environmental Coordination Office. EPA Region 4, each state and environmental regulatory agency, state research universities and providers of technical assistance are also members. A steering committee provides ongoing guidance and direction.

The military installations, in meeting their environmental challenges while maintaining combat readiness, ironically had too much P2 information for the small environmental staffs to sift through. One of the partnership's first objectives was to develop, distribute, and analyze a needs survey to determine regional P2 priorities. Once these needs were narrowed down to about a dozen manageable and fundable projects, the partnership sought universities to conduct the needed research and training.

These projects—EMS training and implementation, optimization of building deconstruction, a watershed advisory board, prescribed burning on military facilities, and in-vessel biotreatment systems among others, have been underway or completed in the past two years. Their results have been or will be disseminated to the appropriate Region 4 installations.

Many issues can be addressed regionally through technology transfer and idea-sharing forums. The Partnership's quarterly newsletter, *RESOURCES,* describes partnership activities and successful strategies. Web resources, listserves, and e-mail also help disseminate information. EPA, DoD, universities, and the Waste Reduction Resource Center are also resources for Region 4 states. All of these resources cost the user virtually nothing.

The regional partnership takes pride in its achievements. In its priority survey, the Partnership identified and prioritized pressing areas of state and regional concern, obtained DoD funding, and implemented solutions accordingly. Partnership goals have also evolved; after focusing on P2 in all media areas, the Partnership realized that P2 was ultimately just one way to reach the primary goal of sustainability. The Partnership will continue to reevaluate priority areas to ensure that installation needs are met.

For more information, contact Christine Steagall, Program Coordinator, Env. Research and Service Unit; U. of S.C. (803) 777-7463 or visit: http://wrrrc.p2pays.org/DoDPartnership.

Georgia honors DoD for P2 Partnership

The Georgia Pollution Prevention Division (P2AD) and Department of Defense (DoD) are celebrating the fifth anniversary of the Georgia P2AD/DoD Pollution Prevention Partnership.

The Partnership advances P2 as a primary environmental compliance tool, is a model for other partnerships, and was a catalyst in creating the first regional DoD P2 partnership in the country (see related article above). Members include the Army Southern Regional Environmental Office, regional environmental coordinators (RECs) from each military service, representatives of the military installations and commands in Georgia, U.S. EPA Region 4 (Atlanta) and P2AD.

As a result of this collaboration, innovative waste reduction initiatives have been developed and implemented at installations, and communication between the military and state government has improved.

For example, Fort Stewart in Hinesville, Ga. recycles over 17 different types of materials totaling approximately 2,750 tons, and generates approximately $190,000 in revenue per year. The site also accepts recyclables from several neighboring communities.

Naval Submarine Base (SUBASE) in Kingsbay, Ga. recycles lime sludge (a water treatment plant waste by-product) as a soil conditioner. In 1997-8 it diverted 52 percent of all non-hazardous waste to recycling or other beneficial use.

Robins Air Force Base (Warner Robins Air Logistics Center (WR-ALC)), the largest industrial complex in Georgia, reduced in flightline vacuum waste from approximately 125 tons to 84 tons, and disposal costs from $204,000 to $97,000 per year.

With support from EPA Region 4, P2AD provides free and confidential environmental technical assistance for P2, resource conservation, waste reduction, by-product reuse and recycling. P2AD's clients include manufacturing industry, commercial businesses, agriculture, public institutions, and federal facilities.

Making Green Procurement Work For You

With hundreds of "green" product categories across the supply spectrum, purchasers are thinking "green", buying "green" and saving green. Now the tools exist to make "green purchasing" an integral and normal part of your purchasing process.

Federal, state and local governments purchase the majority of their products and services through contracts – and together spend over 600 billion dollars a year. Collectively, government entities have, and can continue to create a catalyst for more green products in the marketplace. Purchasing "green" products through contract mechanisms also enables governments to specify product attributes – including "green" or environmentally preferable — and require bidders and contractors to find and provide the products matching these requirements.

For instance, when the Pentagon wanted to build a new parking lot, contract officers told bidders they would receive a price deferential for each environmental attribute they added to the parking lot, such as recycled-content asphalt and low levels of volatile organic compounds (VOCs). The winning contractor found these materials and other products that fit Pentagon specifications.

The point of this example is that once you know what to ask for, contractors, and their suppliers, will find what you need. The following tools will help you identify what environmental attributes to ask for and what products and services will meet your price, performance and environmentally preferable criteria.

U.S. EPA's Environmentally Preferable Purchasing (EPP) Homepage

http://www.epa.gov/oppt/epp

This website answers purchaser questions about what EPP is and how they can find the best product or service that benefits both human health and the environment. From case studies, to a glossary of environmental purchasing terms, to a complete tool suite that can help purchasers "green" everything from meetings to cafeterias, EPA's EPP web site should be a purchaser's first stop on the road to purchasing "greener" products and services.

U.S. EPA's Database For Environmentally Preferable Goods and Services

http://www.epa.gov/oppt/epp/database.htm

This database contains information or links to: 1) contract language and specifications created and used by federal and state governments and others to buy environmentally preferable products and services; 2) environmental guidelines and standards for products; 3) vendor lists of product brands that meet these standards; and 4) other useful sources of information on the environmental preferability of products and services (e.g., U.S. E.P.A. Environmentally Preferable Purchasing Updates, guidance documents, fact sheets, case studies, and miscellaneous information useful to government purchasers).

Center for a New American Dream Procurement Strategies Website

http://www.newdream.org/procure

The site provides general information about environmentally preferable purchasing and specific information about how state and local governments can reduce the environmental impacts of their purchasing decisions.

Green Meetings

http://www.epa.gov/oppt/greenmeetings/index.htm

"Green" meetings minimize negative impacts on the environment. By using EPA's green meeting planning site, you can access information to assist you in organizing your conference to be "greener".

ENVIRONMENTAL SPOTLIGHT

*Continued from **page 2***

groups whose work impacts homeland security.

I would also like to encourage the federal facility community to develop new networks and partnerships by meeting with P2 colleagues at NPPR annual conferences and events. These forums provide members an opportunity to exchange the latest in P2 research, policy funding opportunities, and technical expertise. One such upcoming opportunity is the National Environmental Assistance Providers' Summit in April 2004 – the first event of its kind hosted by the U.S. EPA and NPPR. The summit will convene government, industry and non-governmental organizations which work on pollution prevention, compliance assistance, environmental policy innovations, environmental management systems, and sustainability.

As we move forward on several fronts, federal facilities will play a key role in new and innovative environmental programs. Developing "performance-based" regulation will take a collective commitment to produce better environmental results. Many of the tools exist today, including sectoral pollution-prevention "covenants," environmental performance indicators, market trading of emissions permits, third-party certification of environmental performance, regulatory flexibility, and frameworks for sustainability.

Many P2 leaders advocate these approaches on grounds not just of eco-efficient cost reduction, but of the potential for introducing more environmentally benign innovations in production processes and products – for a "greening of business" and even a long-term term shift toward "sustainable enterprise." Federal facilities play a critical role in this effort and the P2 community will commit to making this happen.

NIH Going Mercury Free

The National Institutes of Health (NIH), an agency of the Department of Health and Human Services, is the primary federal agency dedicated to medical research. Its main campus, located in Bethesda, Md., is the largest biomedical facility in the world, consisting of over 4,000 laboratories, a 325-bed research hospital (the Clinical Center), and a large Ambulatory Care Research Facility.

In 1995 the NIH began a voluntary P2 program that included an initiative to eliminate mercury in medical devices used in the Clinical Center. Key to the success of this initiative were early efforts to inform medical professionals and researchers about mercury hazards and convince them of the suitability and availability of mercury-free devices in clinical applications and research. Arrangements were then made to procure mercury-free thermometers and blood pressure devices, and collect and recycle the mercury from the discarded items. This led to the removal of over 1,500 devices without a single spill or interruption in patient care and research activities. The Clinical Center is now considered virtually "mercury-free."

In 2001, an expanded effort – the "Mad as a Hatter?" Campaign for a Mercury Free NIH, was initiated to extend the mercury reduction program to all NIH laboratories and facilities in the U.S., and increase employee awareness through a new web site and volunteer pledge program. This ongoing campaign led to the replacement of several thousand additional mercury thermometers and substitutions of mercury in biomedical reagents. Mercury contamination in facility infrastructure is also being addressed by development and implementation of improved protocols for assessment and remediation of mercury in laboratory decommissioning projects.

NIH employee volunteers also carried the campaign to homes, schools and communities via exhibits, presentations, health fairs and other outreach efforts. This outreach activity was one of several P2 programs that resulted in the NIH receiving the Significant Achievement Award for a Federal Facility from Businesses for the Bay, a voluntary pollution prevention organization made up of more than 500 businesses, industries, government facilities and other organizations in the Chesapeake Bay watershed. In recognizing this award, Governor Parris N. Glendening, then Governor of Maryland, specifically cited the NIH's mercury reduction campaign as setting "a high standard for environmental outreach and education."

Other federal facilities are welcome to join the mercury-free campaign. Generic versions of campaign graphics and promotional materials can be made available by contacting Captain Edward Rau, NIH, (301) 496-7775, raue@mail.nih.gov.

Campaign Web site: http://www.nih.gov/od/ors/ds/nomercury/

VA BECOMES PART OF HEALTHY HOSPITALS INITIATIVE

The **U.S. Department of Veterans Affairs (VA),** the largest integrated healthcare network in the country, committed to reducing its environmental impact by becoming a "Champion for Change" in the innovative **Hospitals for a Healthy Environment (H2E)** program. The VA is now the first government-owned healthcare system to commit to the proactive goals of the voluntary H2E program. The program is designed to help health care facilities reduce their environmental impact while saving money, reducing liability and increasing compliance. The H2E program has set ambitious goals of eliminating the use of mercury in health care by 2005, cutting health care waste in half by 2010 and reducing the use and production of toxic and hazardous substances. To date, more than 460 H2E Partners and 55 Champions, representing nearly 1,800 health care facilities, have signed on to help achieve these goals. In the program, "Partners" are individual hospitals and healthcare facilities, while "Champions" are larger, multi-facility healthcare networks and associations. Operating nearly 170 hospitals across the country, the VA is also one of the largest healthcare systems to become an H2E Champion. Hospitals for a Healthy Environment is a joint program of the American Hospital Association, EPA, Health Care Without Harm and the American Nurses Association.

For more information about H2E, go to http://www.h2e-online.org/

WHY SHOULD FEDERAL FACILITIES FOCUS ON MERCURY ELIMINATION?

- **Mercury is a "bad actor".** Exposure to mercury can cause potentially serious damage to the nervous system and other adverse health effects. In the environment it is considered a Persistent, Bioaccumulative and Toxic (PBT) chemical – a high priority for pollution prevention.
- **Elimination is feasible.** Suitable alternatives are available for almost all uses of mercury and its compounds.
- **High return on P2 investment.** Eliminating use of mercury prevents potential spills and contamination of plumbing systems and other facility infrastructure. The costs of carrying out a facility-wide mercury elimination campaign can be far less than cleaning up a single spill.

Federal Electronics Challenge: Putting Electronic Products in Their Place

The Federal Electronics Challenge (FEC), launched in May 2003, is in a year-long pilot phase and is setting the stage for purchasing and end-of-life strategies that will encourage environmentally sound electronics management at all federal facilities and agencies.

Electronic waste (e-waste) is the most rapidly growing waste problem in the world, and is posing new environmental and human health threats. E-waste includes used and obsolete electronics, such as computers, printers, mobile phones, and fax machines. As one of the largest consumers of electronics products, the federal government has a unique opportunity to set the pace for environmentally sound electronics procurement and end-of-life management.

The Federal Electronics Challenge is a purchasing, operations, and end-of-life management challenge issued for federal facilities or agencies that want to: 1) purchase greener electronics products; 2) manage their electronic assets in an environmentally sound manner; 3) receive assistance to change their current practices; and 4) gain national recognition for their efforts.

The Challenge is open to all federal agencies and facilities. FEC is sponsored by the Office of Federal Environmental Executive (OFEE), U.S. EPA, Department of Defense, General Services Administration, and Federal Network for Sustainability, with additional agencies likely. FEC "Partners" learn the importance of applying environmentally sound electronics management principles throughout a product's life cycle stages—from the acquisition and procurement of environmentally preferable products to the operations and maintenance phase to end-of-life management of those products.

After completing a baseline survey, Partners set realistic goals to improve the management of their electronic assets and will track their progress. Depending on a Partner's commitment level and achievements, Partners can qualify for a bronze, silver, or gold award. The more the partners do, the higher the recognition they will receive; Gold Partners receive White House recognition. Partners will also receive technical assistance, networking opportunities, and additional tools and resources as they work to reduce their environmental footprint.

GET INVOLVED!

The FEC Steering Committee is seeking partner facilities in Washington, D.C., Great Lakes and West Coast regions for the pilot phase. FEC welcomes information from the electronics industry, recyclers, and non-government organizations.

For more information on how you can sign up to become a partner, get involved as a stakeholder in the Federal Electronics Challenge, or to learn more about reducing your electronic waste impact, visit: **http://www.federalelectronicschallenge.net** or contact Charles Johnson at: johnson.charles@ofee.gov, or Christopher Kent at kent.christopher@epa.gov.

WHAT'S IN ELECTRONIC PRODUCTS?

Electronic products are made up of a combination of precious and other metals, engineered plastics, glass, and other materials—all valuable resources that are all too often sent to landfills without a second thought. Some electronic products contain hazardous or toxic substances. Products containing cathode ray tubes (CRTs), circuit boards, batteries, and mercury switches can contain lead, mercury, cadmium, chromium, and some types of flame retardants, which can pose serious environmental risks if not properly managed. This growing, changing product stream presents new challenges and responsibilities in designing and managing electronic products to reduce their life-cycle environmental impacts.

P2 Quicknotes

FLOURESCENT LAMP RECYCLING

Flourescent lamps can help facilities reduce energy consumption – they use one quarter the energy of incandescent lamps and last as much as ten times longer. However, flourescent lamps contain the toxic element mercury, and when broken or improperly disposed of can release mercury into the air, water and soil. Recycling spent-mercury lamps offers an environmentally sound alternative to expensive hazardous waste disposal. **Hospitals for a Healthy Environment (H2E)** outlines a process for flourescent lamp recycling. You don't have to be a hospital to take advantage of these guidelines. Visit them at: **http://www.h2e-online.org/tools/mercury.htm**

AMERICA RECYCLES DAY

As part of the annual **America Recycles Day** initiatives in the Washington, D.C. Metro area, the Office of the Federal Environmental Executive in conjunction with several other federal agencies, District of Columbia Recycling Program, private industry, and non-governmental organizations sponsored a two-day electronics collection and recycling event. The event, which was open and free of charge to all residents and government employees in the D.C. metro area, was held at the Carter Barron Amphitheatre in Rock Creek Park on Friday, November 14, 2003 and Saturday, November 15, 2003. The purpose of the event was to educate consumers about the environmental benefits of electronics recycling, and to encourage them to recycle electronics by providing them with an opportunity and outlet to do so. More than 66,700 pounds of electronics were collected by 75 local citizens and volunteers from the federal agencies, D.C. government, private businesses and not-for-profit organizations.

NIH Sets E-cycling Record

As part of a regional pilot project to improve collection and recycling of electronic equipment, the EPA and the Maryland Department of the Environment (MDE) were looking for an agency to host and publicize an electronics recycling (e-cycling) event. The National Institutes of Health (NIH), an agency of the Department of Health and Human Services, volunteered and subsequently scheduled the event as part of its Earth Day celebrations in April 2003.

Open to government employees and the local community, the event provided an opportunity to recycle all types of personally owned electronics – from cell phones to televisions and computers. The operators of White Flint, a nearby shopping mall, generously offered the use of one of their parking lots for the collection site and provided free advertising for the event on their website and electronic marquee sign at the mall entrance. Volunteers also distributed posters and flyers to advertise the event.

The first indication of success came well before the event's scheduled start as "e-junk" began arriving by car, truck, bike and from pedestrians. Two additional service lines were opened to handle the increased volume of material, which continued throughout the event, and after drop-off areas were closed. An estimated 670 deliveries of electronics were made that day, totaling 34 tons of equipment. According to Jim Richmond, MDE representative, this set a new statewide record for the largest amount of e-cyclable materials collected in a single day event.

Most equipment collected will be disassembled in facilities located in the U.S. and recycled. Some equipment in working condition will be refurbished and donated or sold. For example, 103 of the collected cell phones and related accessories will be given to the Wireless Foundation and reconfigured as emergency call phones, or used in abuse prevention programs.

Lessons learned from this event will also be "recycled" by other federal and state agencies for application at future e-cycling events. The NIH e-cycling event publicity website is still on-line at http://www.nih.gov/od/ors/ds/ecycle/. Its content may be copied without permission. Contact Captain Ed Rau at the NIH (301) 496-7775 for additional information.

EPA, DOD, AND STATES FIND COMMON GROUND THROUGH PARTNERSHIPS

*Continued from **page 6***

(Also see related article on the DoD Region 4 Pollution Prevention Partnership on page 8)

In the west, the state of Washington Environmental Forum (WEF) is a group of senior military commanders and leaders from regional and state environmental agencies which play significant roles in each other's environmental progress. Members from Fort Lewis served on the Washington Governor's advisory panel to formulate the Washington State Sustainability Plan, published in March 2003. Partners are now transforming WEF into a Washington sustainability forum, reflecting its new direction.

The Pennsylvania/DoD Cooperative Multi-Site Agreement (CMSA), comprised of the Pennsylvania Department of Environmental Protection, the Departments of Army, Navy, Air Force, and the Defense Logistics Agency, agreed in 1998 to assess, remediate and resolve Pennsylvania's contaminated Formerly Used Defense Sites. A CMSA goal was to remedy or resolve issues for all covered sites by 2010. In 2003, hundreds of sites needing further study were resolved, and CMSA members feel that agreement terms are being exceeded.

For more information about state partnerships, contact Adrian Miller of the Army Northern Regional Environmental Office, 410-436-2427, or visit http://aec.army.mil/usaec/reo/nreo00.html

Alternative Fuels Clear Air at NASA Glenn Research Center

The NASA Glenn Research Center (GRC) in Cleveland is reminiscent of a small town from the 1940s. Rows of small brick buildings and crabapple tree-lined roads are interspersed with odd metal structures for propulsion research. In this small, confined town, exhaust constantly emits from delivery trucks and personnel shuttles, from forklifts in enclosed warehouses, and even from propulsion testing facilities.

Several years ago, these exhaust emissions were mostly from unleaded gasoline and diesel. In addition to their long-term impact on global warming and acid rain, fossil fuel emissions also cause bad odors, and stop workers in their tracks. The odor issue propelled an alternative fuel project to quick completion at GRC.

JP-8 (a kerosene-based fuel in military and airline use) replaced the costly hydrogen fuel in NASA's Aero-Acoustical Propulsion Lab (AAPL). When AAPL staff lit JP-8 to run hot tests, complaints would flood in from surrounding buildings, depending on the wind direction. According to the facility engineer at AAPL, the odor was a noxious barbecue-type smell, like lighter fluid, and gave people headaches. AAPL was faced with the prospect of shutting down or finding an alternative fuel.

At its next normal maintenance interval, the AAPL combuster was changed out to accomodate lighter-than-air, odorless compressed natural gas (CNG). CNG is also a fossil fuel, but emits 90 - 97 percent less carbon monoxide, and 35 - 60 percent less nitrogen oxide than gasoline. In over nine months of operation, AAPL has not received a single complaint.

Other fuels were also considered. Propane was rejected because it is heavier than air and creates a fire hazard if fumes escape. Two renewable alternative fuels are being used or studied at GRC: bio-diesel from soybeans and ethanol ("E85"), a corn product.

Biodiesel replaced diesel in a difficult to re-start truck whose batteries were not charging properly and kept running when parked and making deliveries. A nine-month pilot program at GRC studied one vehicle using various diesel to biodiesel percentages. Fuel-line freeze-up is a big concern in northeast Ohio winters, so a widespread Midwest formula – 20 percent biodiesel to 80 percent low-sulfur diesel (called "B20") - was chosen. The winter's coldest weather conditions were no problem for this fuel mix. During warmer weather, a test vehicle was able to run on 100 percent biodiesel with no problem, except making the driver hungry. He said, "It smelled like French fries."

Drivers say the truck runs just as well, or better, on biodiesel. Biodiesel acts as a solvent, cleaning out the lines. The fuel filter clogs the first time biodiesel is run through, but once the contaminants are cleared out by the biodiesel, there are no more filter problems. Biodiesel also reduces emissions, and is biodegradable and nontoxic.

GRC also uses biobased fuel E85. E85 is 85 percent ethanol blended with 15 percent gasoline. Ethanol is 100 percent grain alcohol produced by fermenting plant sugars, primarily corn, since it is most easily converted to sugar. Compared to gasoline, E85 emits 40 percent less carbon monoxide and 80 percent less sulfate. In the 1880s, Henry Ford designed a car that ran only on ethanol, and the Model T was designed to run on either ethanol or gasoline. 120 years later, there are over 160 fueling stations offering E85 in 24 states.

GRC recently converted a 10,000 gallon underground storage tank to E85, and installed an E85 dispenser. The Center uses E85 in twelve E85-compatible vehicles, and will replace older vehicles at future intervals.

Over half of GRC's owned and leased fleet of 145 vehicles uses some form of alternative fuel. All 36 diesel vehicles, stationary diesel storage tanks, and all equipment using the tanks, like generators, use B20 biodiesel. Thirty-eight vehicles use CNG: shuttle buses, cargo vans, passenger vans, pick-up trucks, and passenger cars. One forklift will be used for a CNG emissions study, with a goal of converting several forklifts from propane to CNG to improve indoor emissions for workers.

To learn more about alternative fuel usage at NASA/GRC, please contact their P2 Team at: 216-433-8441.

EPA POWERS UP THE GREEN WAY

EPA recently announced the acquisition of "green" power for the EPA Headquarters facilities at Federal Triangle in Washington, D.C. The power will come from wind farms and landfill gas facilities in Pennsylvania, West Virginia, and Maryland. EPA's Federal Triangle facilities use 40 million kilowatt hours of electricity per year.

This is EPA's largest green power purchase to date and reflects its continuing efforts to reduce the environmental impact of EPA's facilities. With this purchase, EPA will have green power at nine locations: Richmond, Calif.; Golden, Colo.; Manchester, Wash.; Chelmsford, Mass.; Cincinnati, Ohio; the New York Regional Office; Edison, N.J.; Houston, Texas; and the Federal Triangle Buildings in Washington, D.C. Soon, EPA will also have green power at its new laboratory in Research Triangle Park, N.C. GSA's National Energy Center assisted EPA with this procurement.

More information on Green Power at EPA facilities can be found at: http://www.epa.gov/greeningepa/energy/greenpwer.htm or http://www.epa.gov/greeningepa

For more information on the EPA's **Green Power Partnership Program, visit: www.epa.gov/greenpower**

TVA and Environmental Stewardship

The **Tennessee Valley Authority (TVA)** is a public power company, but it does much more than generate power. It supports economic development and manages the natural resources of the Tennessee River Basin through integrated resource management. TVA strives to balance and optimize the competing demands of river navigation, flood control, power supply, land use, water quality and recreation.

TVA's eleven watershed teams are striving to maintain good environmental stewardship practices throughout the 290,000 acres of public lands, including 11,000 miles of shoreline in the Tennessee River Basin. Watershed teams have a broad mission: improve and protect water quality, guide shoreline development and improvement, provide recreational opportunities, while ensuring both economic development and environmental protection.

Watershed teams communicate with stakeholders when developing and implementing land management plans for TVA reservoirs. These plans direct where development and environmental protection is most appropriate in order to sustain the balance. The Reservoir Operations Study is another example of how TVA is listening to stakeholders and reevaluating its policies on managing the river system.

TVA also participates in partnerships to improve water quality across the Valley. With 50 initiatives located throughout the Valley, TVA targets efforts where it will accomplish the most benefit for stakeholders by making resource improvements, protecting existing resources, and anticipating growth.

The Tennessee Growth Readiness Program and the Tennessee Valley Clean Marina Initiative help communities learn how land use decisions affect water quality and supply, comply with regulatory requirements, and make informed decisions about managing growth. The related article (see page 15) describes these programs in more detail.

Since 1999, TVA has not received federal appropriations and has funded environmental stewardship activities through power revenues. TVA provides power to large industries and 158 power distributors that serve 8.3 million consumers in seven southeastern states.

For more information about TVA and its stewardship initiatives contact Buff Crosby at TVA, (423) 751-7687 or visit TVA's web site at **www.tva.com.**

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Got an Article?

If you have an article about an environmental activity or program at your agency or facility, and you'd like us to consider it for publication in the next FedFacs, please contact: Marie Muller at muller.marie@epa.gov. FedFacs is published twice a year, and articles are generally 500 words or less. The U.S. EPA reserves the right to edit or decline any article.

SUSTAINING TVA'S NATURAL HERITAGE

The TVA Regional Natural Heritage Project, initiated in 1976, contains data on a variety of biologically-related disciplines including aquatic and terrestrial plants and animals, threatened and endangered plant and animal species, natural areas, wetlands, caves, waterfalls, champion trees and animal gathering areas in the multi-state TVA region. This information is used to assist scientific research and improve natural areas, as well as protect biological diversity by guiding development away from sensitive areas. Currently, the database contains over 30,000 individual records.

Because the Natural Heritage database is integrated into TVA's environmental review process, decision makers can identify, minimize or eliminate potential conflicts between proposed development and critical natural resources. Project biologists and their partners regularly inventory populations of federally listed plants or animals on TVA lands to determine population numbers and vigor, identify population trends, and plan appropriate protection and enhancement for them.

Inventory data is further used to prioritize areas on TVA lands appropriate for inclusion into TVA's Natural Areas program. As a result, the Natural Heritage Project now manages a world-class system of nature preserves spanning approximately 13,000 acres in five states. These natural areas protect listed plants and animals for future generations, while other areas are publicly accessible for passive recreation, nature appreciation, and other educational programs.

Recently, Dr. William Redmond, the retired founder and leader of the TVA Regional Natural Heritage Project was presented the Tennessee Department of Environment and Conservation's "Conservation Award". In 1993, the TVA Heritage project received The Nature Conservancy's first Outstanding Heritage Program award.

For more information about this program, contact Peggy Shute at TVA, (865) 632-1661 or visit TVA's web site at www.tva.com.

Partnering for Better Water Quality and Sustainable Development

The **Tennessee Growth Readiness Program** helps local communities within the TVA seven-state region learn how land management decisions impact water quality and how to make informed choices about growth and development. TVA manages the program for the Tennessee Department of Agriculture, and works with the University of Tennessee Water Resources Research Center and the Southeast Watershed Forum to deliver training, materials and support to planners and public works officials. The program began as a pilot, and adapted strategies from other watershed programs. The program teaches planners and public works officials about the complex issues and choices surrounding land-use and water quality, how to educate others in their communities, and how to design a Site Planning Roundtable process. Community specific maps and data help explain how current and future land-uses may exacerbate existing water quality problems. The goal is for communities to evaluate their existing growth and development regulations and revise these to better protect their water resources. Officials from over 300 communities have participated in the program, and many are considering revising their codes and ordinances to improve water quality in the region.

The goal is for communities to evaluate their existing growth and development regulations and revise these to better protect their water resources.

For more information about the Tennessee Growth Readiness Program, please call Joel Haden at TVA, (865) 632-2132, or visit the program's website at http://tgr.utk.edu.

The **Tennessee Valley Clean Marina Initiative (CMI)** is a regional, voluntary certification program developed by TVA Resource Stewardship and its watershed partners to promote sound, environmentally responsible marina and boating practices along the 11,000 miles of shoreline in the Tennessee Valley. The Initiative improves water quality through non-regulatory, collaborative P2 and other source reduction strategies with marina operators, other regulatory agencies, watershed organizations and the marine industry. CMI focuses on: 1) sewage management; 2) fuel management; 3) solid waste and petroleum recycling and disposal; 4) vessel operation, maintenance, and repair; 5) marina siting, design and maintenance; 6) storm-water management and erosion control; and 7) boater education. With the help of the TVA Watershed Team, marina operators assess their operations and facilities and identify areas for improvement. Teams also conduct workshops, and provide useful resource material, including information on environmentally friendly marine products. Participants get recognition through a variety of media, and also are allowed use of the CMI logo. Certified marinas are reporting observable improvements in water quality in and around their marina basin. The Initiative has broad participation among marinas and boaters, and new partnerships among federal, state and other regional entities have also been forged. This program may be a model for other parts of the southeast United States. Currently, the U.S. Army Corps of Engineers (Nashville District) and the Mississippi/Alabama Sea Grant Consortium are developing Clean Marina programs based on this model.

For more information about this initiative contact Linda Harris at (423) 876-4178 or visit TVA's web site at: www.tva.com.

FEDERAL FACILITY P2 REQUIREMENTS

Federal facilities should recognize that pollution prevention is not merely a goal or an aspiration. Rather, pollution prevention is a specific obligation outlined in numerous statutes and executive orders.

The Pollution Prevention Act of 1990 defines pollution prevention as any practice that "reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal" and "reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants."

The Act further states, "...pollution should be prevented or reduced at the source whenever feasible; pollution that cannot be prevented should be recycled in an environmentally safe manner whenever feasible; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible; and disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner."

Specific statutes and executive orders that provide for pollution prevention include:

- Clean Air Act (CAA) §7402-7405, §7412-7418
- Resource Conservation and Recovery Act (RCRA) §6907-6908, §6921-6927, §6931, §6981
- Clean Water Act (CWA) §1251-1256, §1342, §1381
- Pollution Prevention Act (PPA) §13103-13106
- Emergency Planning and Community Right to Know Act (EPCRA) §11001-11005, §11021-11023
- Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) §136
- National Environmental Policy Act (NEPA) §4331, §4363, §4363, §4368
- Executive Order 13148
- Executive Order 12088
- Executive Order 12856

EPA Partners with Manufacturers and Retailers for Cleaner Marine Engines

EPA and New Jersey's Department of Environmental Protection recently entered into a formal agreement with local trade and retailers associations through which the parties will work to ensure that by 2005, 95 percent of the two and four-stroke marine engines sold in these states are low-polluting. EPA hopes to sign a similar agreement with other local, regional trade associations, and the New York State Department of Environmental Conservation.

Conventional two-stroke marine engines powered most outboard engines and personal water craft. These engines often emit dark smoke containing hydrocarbons and nitrogen oxides, which contribute to the formation of ground-level ozone or smog. Unburned gasoline is also released directly into the water from such engines, and contaminate water bodies with toxic chemicals such as benzene, toluene, xylene and ethylene.

This program can potentially benefit federal entities which own and operate boats with outboard engines. Four-stroke and direct fuel-injected two-stoke engines are commercially available at practically any marine retailer. Being part of a clean marine engine program also provides opportunities for federal agencies to partner with states and industry.

The parties will work to ensure that by 2005, 95 percent of the two and four-stroke marine engines sold in these states are low-polluting.

EPA has established clean marine engine agreements with the marine industry and state governments in Wisconsin, Rhode Island, Vermont, Florida, Maine, New Hampshire, Oregon, Connecticut, Massachusetts and Maryland. New federal mandates for low-emission engines take effect in 2006, but those participating in the clean marine engine programs are committed to beating that deadline for the vast majority of engines they make and sell.

For more information on clean marine engines or how to set up your own clean marine engine program, visit http://www.epa.gov/docs/Region2/cleanmarine/index.html or contact EPA Region 2 Clean Marine Engine Project coordinator Tristan Gillespie at: gillespie.tristan@epa.gov.

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Ovens Decrease Solvent Use at Los Alamos

At Los Alamos National Laboratory (LANL) staff are encouraged to find and adopt methods for reducing waste and preventing pollution. In two cases, ovens reduced the need for solvents; they are used to test the oil content of asphalt samples, and to clean glassware for experiments.

Before construction materials are used at the Laboratory, samples are tested. Asphalt aggregate is tested to determine the percentage of oil in the sample. In the past, oil was removed from samples by soaking and rinsing them in Stoddard solvent, a hazardous waste. A new binder oven now removes oil without solvent, with more accurate results and at a lower cost.

The binder oven eliminates about 55 gallons of solvent waste per year, and labor costs are reduced by approximately $24,000 per year. It reduces disposal costs, storage space requirements, and time spent completing the waste documentation. Employees are no longer exposed to organic solvent, so health risks and the need for safety supplies are reduced. Samples are tested almost three times faster, and materials not meeting specifications are identified and rejected more quickly. The binder oven also reduces the chance for human error during sample preparation by providing quantitative analysis of oil content for each sample.

A different oven cleans glassware in several organic chemistry labs at LANL. A high-temperature oven decomposes organic compounds, and organic vapors in the exhaust are destroyed by a catalytic oxidizer system. The new ovens eliminate the need to clean glassware with oxidizing acids or solvents such as acetone, methanol, or dichloromethane to remove organic residue. Old methods exposed employees to hazardous chemicals, required cleaning chemicals and rinse water to be treated as hazardous waste, and did not always completely remove residue, contaminating glassware for future experiments.

Binder oven at LANL.

After the oven cleans the glassware, researchers rinse it once to remove any inorganic compounds. Cleaning glassware with the high-temperature oven requires 50 percent less rinse water, is expected to reduce 50 kg of hazardous waste per year, and save approximately 100 hours of staff time.

For more information about LANL's use of ovens at their labs, or its vehicle maintenance shop P2 strategies, please contact Sonja Salzman at: ssalzman@lanl.gov

NATIONAL GUARD AND ILLINOIS PARTNER ON WEAPONS CLEANING SYSTEM

The Illinois Army National Guard (ILARNG) is using a centralized, ultrasonic aqueous weapons cleaning facility to cut down on hazardous solvent impregnated cleaning cloths and wipes generated during weapons cleaning operations at its 54 armories throughout Illinois.

The ILARNG contacted the Illinois Waste Management and Research Center (WMRC), a division of the Illinois Department of Natural Resources, to find a replacement for hazardous solvents it was using. WMRC suggested the elimination of hazardous solvents altogether. Aqueous detergents worked well removing oils and greases from weapon surfaces, but failed to remove carbon built-up on interior operating surfaces. Heating the aqueous cleaners still failed to remove the built-up carbon. The combination of heat, detergents and ultrasonic agitation proved most effective at removing oil, dirt and carbon from the most confined weapon surfaces.

The cleaning system consists of an overhead gantry which moves a rack of ten weapons through a three-tank cleaning process. The first tank cleans, with the aid of two 24-inch stainless steel probe-type ultrasonic transducers. The second tank rinses the weapons, and the third tank introduces hot air to assist drying. Cleaning and rinsing baths are heated to180 degrees.

For cleaning, the hand guards, bolt assembly and charging handle are removed from the each weapon; the barrel assembly remains attached to the receiver assembly, is disassembled, placed in a stainless steel mesh screen bag and attached to the weapon. Weapons are placed in the storage rack, which is inverted and lifted into each tank in turn. After drying, the soldier collects his weapon, blows off any remaining moisture with an air compressor, lubricates and reassembles the weapon.

An ultra filtration membrane system reclaims spent cleaner solution and rinse water. Reclaimed water and detergent is returned to the cleaning system and the contaminants, the oil dirt and carbon, are concentrated for disposal.

This weapons cleaning system has operated for a year with no major problems. The system design allows unit armorers to operate the system with minimal instruction. Facility personnel inspect and perform maintenance on the system after each training period.

Jon Casebeer is the ILARNG point of contact for questions pertaining to this system and can be reached at: (217) 761-3794, Jon.Casebeer@il.ngb.army.mil. Mike Springman is the WMRC point of contact and can be reached at: (618) 466-3806; wmrc@piasanet.com.

U. S. Air Force Adopts Lead-Free Ammo for Training

The U. S. Air Force recently adopted lead-free ammunition for training at base small arms ranges. The transition to lead-free ammunition is a P2 strategy that solves multiple environmental, safety, and health problems, while enhancing the training mission at little to no additional cost.

Conventional lead-containing ammunition poses serious potential and actual environmental, safety and health problems at small arms ranges. The Air Force began its search for an alternative to lead-containing ammunition in 1998. While improved range design features could reduce some problems, the best approach was to eliminate lead-containing ammunition and replace it with lead-free ammunition for training wherever possible.

A small number of Air Force's problem ranges initially tested several types of commercially available lead-free ammunition. The Air Force later teamed with the Naval Surface Warfare Center (NSWC) in Crane, Ind., and procured 5.56mm and 9mm lead-free ammunition from several companies, and continued testing at the NSWC ballistic laboratories.

The ammunition selected is accurate and reliable in training, and is user-transparent to the firer of the weapon. It contains no lead or toxic heavy metals (in either the projectile or the priming composition), functions reliably in unmodified weapons, and is cost-competitive with conventional ammunition.

Lead-free ammunition also means range staff airborne lead exposure limits are no longer applicable, and time-consuming, expensive range cleaning and abatement is no longer necessary. Further, safety is enhanced because the new ammunition is free from ricochet risk, and environmental lead contamination of soil, ground water, and surface water cannot occur. In addition, future small arms range designs will be simplified and more cost-effective.

The Air Force contracted with the Winchester Division of Olin Corporation and the Federal Cartridge Corporation for 9mm and 5.56mm calibers of ammunition respectively. This ammunition should be in full use by late 2004. Adoption of lead-free training ammunition in 12 gauge shotgun and 7.62mm NATO are imminent.

For more information about the Air Force's lead-free ammunition program, please contact: Dennis Kirsch, P.E., Randolph Air Force Base, TX. (210) 652-3240; dennis.kirsch@randolph.af.mil

FORT HOOD TANKER PURGE FACILITY

One of Fort Hood's flagship P2 programs is its tanker purge facility. Since late 2002, Fort Hood, a U.S. Army installation in central Texas, has eliminated the discharge of over one million gallons of water into sewer systems, and saved thousands of gallons of water.

A tanker purge facility is key to keeping Army operations moving smoothly. Large tanker trucks move fuel to vehicles in the field and from unit to unit, and must be cleaned periodically to keep fuel from becoming contaminated. During high operational phases, like the current one with Iraq, tanker cleaning times increase greatly.

In the past, tanker cleaning required a great deal of water as well as time, sometimes as much as eight hours for each tanker. During cleaning, soldiers were not available to train, and tankers were not available for missions. Tankers used to be cleaned by filling the fuel tank with water, pouring in a cleaning solution and manually agitating the tank by driving it. This process was repeated four to five times before the tank was clean. Vast amounts of water were used – often 20,000 gallons of water to clean each tanker. The fuel-contaminated water was directly released into sewer systems, sometimes without even adequately cleaning the tank.

The new purge facility system uses a closed loop, high-pressure washstand that can accommodate two 5,000 gallon trucks; each truck is completely cleaned in 1.5 hours. Up to 45 tanker trucks can be cleaned in a month, even at times of high turn-over. The system recycles all water in a closed loop system and can be used many times. By heating water to 150 degrees, water more thoroughly cleans the tank, and is then flushed

and filtered into another holding tank where fuel residue is skimmed off. Both water and fuel can be recycled and reused, and only five to ten gallons of water are lost. Nothing is discharged into the storm water system.

Construction on this facility will continue into 2004. It will be enclosed in a structure built with agriboard, a sustainable, energy efficient, panelized building material made of compressed wheat straw. The panelized system can be erected in one fifth the time of conventional normal stud wall building, which saves considerable dollars on labor costs. When completed, the purge facility will be a model for other military installations involved in sustainability and pollution prevention projects.

Fort Hood is the largest armored military training installation in the U.S. Army. Encompassing 214,351 acres, it is home to the III Corps, 1st Cavalry Division, 4th Infantry Division, 13th Corps Support Command, and eight other brigade-size units. The Fort Hood-supported population, which includes retirees, survivors, and their family members, is approximately 170,745.

For more information about Fort Hood's tanker purge facility, contact Randy Doyle, P2 Program Manager, Fort Hood. (254) 287-1099; randy.doyle@us.army.mil

NASA Technology Reduces Smokestack and Automotive Emissions

Thanks to NASA, a new method for reducing smokestack and automotive emissions may soon be in use throughout the country. Originally created for satellite lasers to measure the chemical makeup of the Earth's atmosphere, the smokestack and automotive catalytic converter application of Low-Temperature Oxidation Catalysts (LTOC) enables the destruction of pollutant gasses, such as carbon monoxide and hydrocarbons, as well as some nitrogen oxides.

Originally created for use in space, NASA's LOTC technology has been adapted for use on Earth.

Developed at NASA's Langley Research Center, Hampton, Va., LTOC technology is expected to reduce formaldehyde and carbon monoxide concentrations in smokestack emissions by approximately 85 to 95 percent, while reducing automotive pollution emissions by approximately 30 percent.

Current pollution remediation technologies are typically very expensive to implement and maintain. The catalytic-based formaldehyde remediation system will be relatively inexpensive to implement and maintain within continuously operating facilities. It will reduce the time and cost associated with industrial compliance with current and future federal pollution standards.

NASA originally called on Langley researchers to develop a technology for space-based carbon-dioxide laser systems. To maintain carbon dioxide lasers in space for atmospheric research, NASA needed a catalyst system that would affect the oxidation of carbon monoxide, a by-product of carbon-dioxide laser operation, under the cold vacuum of space.

Although the need for a carbon dioxide laser in space gave way to solid-state lasers, the NASA research team developed an oxidation technology that would work at very low temperatures. LTOC technologies were then adapted for higher temperature applications like smokestack emissions and the internal combustion engine.

An automotive catalytic converter using LTOC technology has met initial EPA requirements and California emission standards for the automotive after-market. The LTOC catalytic converter does not require a warm-up period to function and uses significantly fewer precious metals than current commercial products, which reduces the overall cost of an after-market product by 25 percent.

Most modern automobiles are equipped with catalytic converters that treat engine exhaust before it leaves the car. Current technology requires the exhaust to reach a high temperature before the catalytic converter begins to work. LTOC begins to operate at a much lower temperature or as soon as the car is started.

Because of its low-temperature oxidation capabilities, the NASA catalyst begins to work almost immediately enabling destruction of toxic gases even when the catalytic converter is cold.

Through NASA's technology commercialization program, Automated Controls Technologies, Inc. (A.C.T.) of Fairmont, W. Va., is the exclusive licensee for the NASA LTOC smokestack application. A.C.T. officials expect to have products on the market in early 2004. Airflow Catalyst Systems Inc., Rochester, N.Y., is the licensee for the internal combustion application.

Other LTOC technologies include: sensors for carbon monoxide or volatile organic compounds; removal of carbon monoxide and formaldehyde from houses and other buildings; and removal of carbon monoxide and formaldehyde from automobile, aircraft and other vehicle interiors. NASA is still accepting license inquiries for available LTOC applications.

For more information about NASA LTOC technologies, please contact: Chris Rink, NASA Langley Research Center; (757) 864-6786; christopher.p.rink@nasa.gov

P2 Quicknotes

THE POLLUTION PREVENTION RESOURCE EXCHANGE (P2RX)

P2RX is a consortium of eight regional pollution prevention information centers and has several resources available at http://www.p2rx.org. P2Rx produces "topic hubs" designed to provide an overview, process information, P2 options, and best documents (links) of the industrial sector or the topic being covered. Jean Waters has more information at: 402-595-1826 or jwaters@mail.unomaha.edu .

WHAT'S NEW AT THE P2 INFORMATION CLEARINGHOUSE?

The Pollution Prevention Information Clearinghouse (PPIC) is a free service of the U.S. EPA dedicated to reducing or eliminating industrial pollutants in the environment. PPIC provides copies of EPA pollution prevention publications and supports clients in accessing Internet-based P2 resources. To visit PPIC's homepage and its new resources, go to: http://www.epa.gov/opptintr/library/ppicindex.htm

EPA Region 10 Recognizes Northwest Environmental Projects

Federal facilities are among the winners of EPA Region 10's (Seattle) recently announced first annual "Champions for Environmental Leadership and 'Green' Government Innovation" awards program. Eleven facilities were recognized for their cooperative efforts and their "green" projects. Region 10 thanks all 2003 recipients, and reminds other facilities in its region to think about 2004 submissions. The call for nominations will go out in early 2004.

The awardees for 2003 are:

Elmendorf Air Force Base, Alaska — Air Quality Innovations and Hazardous Waste Reutilization. The Air Program saved an estimated $1.5 million dollars in administrative record keeping costs. Elmendorf partnered with the Defense Reutilization and Marketing Service (DRMS) and recycled over two million pounds of hazardous wastes generated by Alaska military installations.

Department of Energy, Richland, Wash. Operations Office — Water Distribution, Hanford Mortar-Lining. The mortar-lining technique is an environmentally friendly, cost-effective, trenchless pipeline rehabilitation process extending the life of existing waterlines with a thin- coated, cement-like mortar applied inside the pipeline. Flow rates tripled from 460 gallons per minute to 1,403 gallons per minute. DOE continues to mortar-line Hanford's degraded pipes to ensure water service.

Denali National Park and Preserve, Alaska — Alternative Energy. Energy management and generator improvements were made at Wonder Lake Ranger Station, Toklat Road Camp, and Eielson Visitor Center. The new propane generators are operated for eight hours every fifth day, instead of daily as with the older generators. There are significant reductions in noise, spill hazards, and exhaust emissions, and fuel consumption was reduced by about 60 percent.

U.S. Naval Air Station (NAS), Whidbey Island, Wash. — Recycling and Alternative Fueled Vehicles. Combined P2 efforts by NAS employees diverted 111 million pounds of solid waste and compostable materials from the waste stream, representing a 65 percent reduction in solid waste over a 13 year period. NAS currently uses 16 electric vehicles, which significantly reduce emissions, noise, and fossil fuel consumption, and save approximately 130 man-hours and $6,100 dollars per user per year, and $858 in fossil fuel usage.

U.S. Army - Fort Lewis, Wash. — Installation Sustainability Program. Between 1994 and 2001, Ft. Lewis reduced hazardous material usage and waste from 600,629 pounds to 254,578 pounds. The Installation Sustainability Program (ISP) set 12 strategic goals to guide program efforts through 2005. A full version of the ISP report can be found at: http://www.lewis.army.mil/publicworks/ftInternet/ftLewisInfo/sistainability/SustainabilityAnnualReport.pdf

Federal Aviation Administration (FAA), Renton, Wash. — Leadership in Energy and Environmental Design (LEED) Tracon Building and Green Power Purchasing Program. Seatac Terminal Radar Approach Control (TRACON) is the first FAA building to meet LEED standards and receive LEED's Certification Gold Level. The TRACON project includes: energy and water efficiency; reduction or elimination of toxic or hazardous building materials; recycling; environmentally preferable materials, and indoor air quality improvement with environmentally safe material, equipment and construction processes. The Green Power Purchasing program stormwater management plan removes 80 percent average annual post-development total suspended solids, and 40 percent post development phosphorus. Overall potable water savings is at least 30 percent.

Eielson AFB, Alaska — Refuse Derived Fuel Program (RDF) and Community Support. Eielson instituted a process to use waste paper and cardboard materials in conjunction with coal in coal fired machinery. This re-use of 70-80 tons per month of waste paper products collected from the Base and neighboring communities has saved Eielson approximately $1.2 million dollars in tipping fees and coal costs in the past six years.

General Services Administration (GSA), Auburn, Wash. — Renewable Energy Program. GSA, in partnership with Bonneville Power Administration completed two photovoltaic projects at GSA facilities in 2002 – a five kilowatt system at the U.S. Courthouse/Federal Office Building in Richland, Wash., and a 2.5 kilowatt system at its fleet management building in Auburn, Wash.. Electrical cost savings are estimated at $1200 a year. These projects help offset energy needs during peak summer month consumption, reduce dependency on fossil fuels and purchased electricity, and are cleaner and more efficient than traditional forms of energy.

Bonneville Power Administration (BPA), Portland, Ore. — Water and Wastewater Energy. BPA's Water and Wastewater Program serves medium and small sized communities in Washington state. Clustering multiple projects resulted in energy savings ranging from 13 to 38 percent at modified plant areas. Savings average 500,000 kilowatts per facility, and reduces approximately 70 tons of carbon-dioxide per year. This also equates to planting 19 acres of trees or taking 14 automobiles off the roads.

Northwest Fisheries Science Center (NOAA), Seattle, Wash. — P2 and Waste Reduction. By installing a nitrogen/protein analyzer to replace the hazardous Kjeldahl Method, NOAA dramatically reduced hazardous waste, chemical usage, employee exposure to hazardous materials and cost. Approximately 400 pounds of hazardous waste are eliminated annually at an approximate cost of $1200 dollars. Other extraction systems reduce methylene chloride, PCBs and pesticides.

For more information about these awards please contact: Michele Wright at wright.michele@epa.gov.

EPA's Performance Track Salutes DOE and DynMcdermott

The U.S. Department of Energy (DOE) and DynMcDermott Petroleum Operations Company, located in New Orleans, are charter members of EPA's most comprehensive voluntary protection program, the National Environmental Performance Track. DynMcDermott is hailed as a model for program members, and recently won renewal of its contract to manage and operate the U.S. Strategic Petroleum Reserve (SPR). According to DynMcDermott, company employees were largely responsible for the renewal because of their efforts in environmental, safety, and health areas.

Performance Track promotes environmental performance which exceeds regulatory requirements. All federal facilities and U.S. companies with a proven record of regulatory compliance, an operational environmental management system, a demonstrated commitment to continued environmental improvement, and outreach to the local community and the public may be eligible to join. Benefits for members include recognition on a national scale; low priority for routine inspections; use of the Performance Track logo; networking opportunities; and access to regulatory changes that reduce reporting requirements and administrative costs.

The SPR was established in 1973 to prevent commercial oil supply disruptions which may disrupt the U.S. economy. It is located in deep underground salt caverns along the Gulf Coast of Texas and Louisiana, and contains the world's largest stockpile of crude oil.

DynMcDermott, an ISO 14001-certified company with 500-1000 employees, is responsible for storing and distributing the SPR's crude oil in the event of a national energy emergency. In its application to Performance Track in 2000, it noted significant reductions in hazardous materials consumption and hazardous waste, and committed to achieve more reductions in the upcoming three year period.

DynMcDermott submitted its annual performance report for Performance Track in July 2002, and described a SPR-wide pollution prevention assessment to determine opportunities for waste reduction and recycling, and proposals for P2 projects. The projects will address DOE's P2 and energy efficiency goals for reducing hazardous waste, and reducing sanitary waste through recycling.

Highlights of their recycling campaign include the following: 900 pounds of telephone books and 94 pounds of Mardi Gras beads recycled; 3,208 pounds of excess paint given to the city of Freeport, La.; 80 pounds of excess mixed paint used as a curing agent and to paint a helicopter pad; 356 pounds of spent wireline grease generated from cavern work reused; over one million pounds of used asphalt and 270,000 pounds of dirt from landfill disposed by donating it to the local parish landfill.

A 960 pound reduction in hazardous solid waste was met and surpassed, and a goal of 15 percent recycling for total solid waste has been almost reached, and air emissions reductions were met and surpassed two years ahead of the commitment date.

As part of its community outreach, the SPR's environmental committee collaborates with emergency planning committees, mutual aid associations, local fire departments, and other local groups. An annual site environmental report is made available to the media, libraries, elected officials and other interested parties on DynMcDermott's website: www.spr.doe.gov.

DynMcDermott's environmental committee conducted quarterly meetings with community advisors, continues to work with a local non-governmental organization assisting in an annual local shoreline cleanup campaign, is a major corporate sponsor for DOE's Louisiana Regional Science Bowl, and maintains a business and education partnership with an "at risk" junior high school. Each SPR site adopts a non-profit organization in the community and provides gifts to needy families or individuals during the Christmas season. Over 70 environmental/P2 awards were given to DynMcDermott contractor employees through the company's Pollution Prevention Awareness Program.

Currently, there are 17 other federal facilities in Performance Track. Applications are accepted twice annually; the next application period will be February- April 30, 2004. Application forms are found at http://www.epa.gov/performancetrack/apps/app.htm. For more information, please contact Luctrician Booth at (202) 566-2867, or booth.luctrician @epa.gov.

Visit Performance Track at: http://www.epa.gov/performancetrack.

In the Spotlight continued on page 22

Continued from ***page 21***

Federal Facilities Recognized with National P2 Award

The National Pollution Prevention Roundtable's Most Valuable Pollution Prevention (MVP2) award was given to two federal facilities at an award ceremony in Washington, D.C. this past September. A contractor at the Los Alamos National Laboratory was also recognized with an MVP2 award. The MVP2 award is a national award given to organizations which demonstrate exemplary environmental stewardship and P2 efforts.

The U.S. Army Corps of Engineers (COE), Alaska District and Jacobs Engineering won their award for an asphalt recycling project in Kodiak, Alaska. By using recycled contaminated material as a base course for road paving, the COE minimized waste streams, provided a remote Alaskan community with a paved road and decreased remediation costs. Transporting the 31,500 tons of material by truck and barge to the nearest suitable landfill in the state of Washington would have consumed substantial fuel and resulted in air emissions, as well as increasing the ecological risk. By not utilizing thermal treatment, 504,000 gallons of fuel was avoided along with the associated emissions of 450 pounds of carbon monoxide and 1,850 pounds of particulates. The estimated cost savings are more than $1.5 million in direct savings, and there were also secondary benefits to the local economy.

The Naval Facilities Engineering Service Center in Port Hueneme, Calif. received an award for their project "Cost-Effective Protection of Ground Water Resources from MTBE and Other Fuel-related Water Pollutants." This innovative project developed P2 technology for underground storage tanks, and is the product of five years of collaboration between the federal government, academia, and industry. One site using this technology documented cost savings of over $30 million. U.S. Representative Lois Capps personally presented the award at the ceremony. U.S. Senator Dianne Feinstein sent a letter of congratulations.

Finally, KSL's staff at Los Alamos National Laboratory (LANL) was recognized for pollution prevention improvements to the vehicle maintenance shop at LANL. Shop employees identified the root cause of most oil leaks – failure of aluminum fittings – and replaced them with sturdier, although more expensive, steel ferrules. This resulted in over 70 percent fewer spills. Contaminated soil was significantly reduced, and LANL is able to treat it on-site using innovative approaches developed by the auto shop employees. Spills inside the shop are cleaned with self-cleaning and reusable oil-digesting bacteria. Bio-based, non-toxic hydraulic fluid made from soybean extract has replaced petroleum-based fluid used in forklifts at radiological control areas outside. If fluid leaks do result, it simply degrades into the soil.

LANL has also installed a hot water parts washer, which saves time, enables LANL to recycle oil and water, and reduces employee exposure to solvents. Projects at LANL resulted in yearly labor savings of approximately $40,000 and avoided costs of more than $80,000. KSL received letters of congratulations from U.S. Senators Pete Domenici and Jeff Bingaman. (Also see the article on page 17 about other P2 strategies at LANL.)

NPPR anticipates applications for next year's MVP2 awards to be accepted until May 15, 2004, and winners notified by July 15. Awards will be presented during National Pollution Prevention week, which will be September 20-26. For further information, visit NPPR's website at: http://www.p2.org.

WHITE HOUSE CLOSING THE CIRCLE AWARDS: 2004

The **Office of the Federal Environmental Executive (OFEE)** is inviting nominations for the **2004 White House Closing the Circle (CTC) Awards.** This program recognizes Federal employees and their facilities for efforts which resulted in significant contributions to or have made a significant impact on the environment. The awards focus on waste prevention, recycling, and green purchasing activities under E.O. 13101, pollution prevention and environmental management under E.O. 13148, and green/sustainable buildings under both executive orders. The complete directions, including information on agencies' internal awards programs and changes to the 2004 award categories, can be found on OFEE's web site: **http://www.ofee.gov/** (click on the "Closing the Circle Awards Nomination" button on the left side of the home page). If you have any questions call us at (202) 564-1297. Good Luck!

P2 Quicknotes

EPA AWARDED A BLANKET PURCHASE AGREEMENT (BPA)

Corporate Express was awarded a BPA for all desktop and non-electronic office supplies EPA purchases using a purchase card. In a BPA, an agency agrees to purchase products from a designated vendor. EPA tailored its agency-specific e-catalog to meet specific environmentally preferable purchasing (EPP) needs. This gives EPA employees access to green office supplies through a commercially owned, agency specific e-catalog. Using the BPA will greatly increase EPA's purchase of green office supplies and will increase purchase of office supplies mandated by Javitz-Wagner-O'Day (JWOD). The BPA will also increase purchasing from small business vendors, give EPA access to group discounts, and allow for better tracking of all office supply purchases made with purchase cards. This will help EPA learn what purchasers are buying and how to improve the system.

Selected P2 Internet Resources

http://www.epa.gov/p2

This is the **U.S. EPA's primary P2 website.** Links to many other P2 resources can be found here.

http://www.ofee.gov

Office of the Federal Environmental Executive – promotes sustainable environmental stewardship throughout the federal government.

http://www.p2.org/

National Pollution Prevention Roundtable – is the largest membership organization in the United States devoted solely to P2. The Roundtable's mission is to provide a national forum for promoting the development, implementation, and evaluation of efforts to avoid, eliminate, or reduce pollution at the source.

http://www.p2gems.org/

P2 GEMS – A database containing full text research documents, research summaries, citations, and names of experts and resources. Publicly funded P2 clearinghouses and research centers across the United States are making special databases and P2 research summaries available on the Web.

http://www.p2rx.org/

Pollution Prevention Resource Exchange (P2Rx) – This network consists of nine regional pollution prevention centers that offer a variety of resources, including information for specific industry sectors, training, libraries, referrals and research. Through P2Rx, the nine centers are laying the groundwork for a seamless national network of easily accessible, high-quality P2 information.

http://www.epa.gov/oppt/library/ppicdist.htm

This is **EPA's Pollution Prevention Information Clearinghouse (PPIC).** This site contains EPA publications about pollution prevention. Many documents are available electronically, but some documents must be requested from EPA.

http://www.epa.gov/opptintr/epp/

The objective of **EPA's Environmentally Preferable Purchasing Program (EPP)** is to encourage, motivate, and assist Federal agencies to include environmental concerns, along with price and performance, as a factor in their purchasing decisions. The EPP Web site provides guidance, case studies, tools, and other resources to help agencies procure environmentally preferable products and services. These products have reduced effects on human health and the environment when compared to others serving the same purpose.

http://www.epa.gov/p2/programs/PBT.htm

EPA's Persistent, Bioaccumulative, and Toxic (PBT) Strategy focuses attention on reducing risks from highly toxic substances that can build up in the food chain to levels harmful to human health. This website contains information about preventing PBTs.

http://www.p2pays.org/

The **Waste Reduction Resource Center (WRRC)** provides technical Pollution Prevention (P2) support to the states in EPA Regions III and IV.

http://www.assistancecenters.net/

Compliance Assistance Centers – In addition to compliance assistance, many of these sites also contain P2 information.

http://www.nrc-recycle.org/

The National Recycling Coalition, Inc. (NRC) is a nonprofit organization committed to maximizing recycling to achieve the benefits of resource conservation, solid waste reduction, environmental protection, energy conservation and social and economic development.

http://www.eere.energy.gov/femp/

The Department of Energy's Federal Energy Management Program works to reduce the cost and environmental impact of the Federal government by advancing energy efficiency and water conservation, promoting the use of distributed and renewable energy, and improving utility management decisions at Federal sites.

http://www.sustainable.doe.gov/

DOE's Energy Efficiency and Renewable Energy Network/Smart Communities Network. Information on green buildings, land use planning, and other sustainable practices.

FAA ENVIRONMENTALLY PREFERABLE PRODUCT WEB RESOURCES

The Federal Aviation Administration (FAA) is actively reducing its hazardous materials usage and hazardous waster generation through several initiatives. The FAA's affirmative procurement program encourages facilities to purchase and use environmentally preferable products and services. To assist in promoting these programs, the Office of Environment and Energy created a product substitution guide to identify environmentally preferable alternatives for hazardous materials used by the FAA. **The FAA's Environmental Substitution Guide can be found at http://www.aee.faa.gov/aee-200/sub_guide/begin.htm.**

The products identified in this guide are either non-hazardous or have more favorable environmental, safety, and health properties than currently used products. The products are organized into the following categories: Adhesives, Cleaners/Solvents, Corrosion Preventive Compounds, Lubricants, Pesticides, Electronics Cleaning and Flux, and Freeze Spray. A new section covering Affirmative Procurement was added with the 2003 edition.

A number of P2 brochures and handouts have been made available to the FAA community. These were developed in preparation for P2 week and America Recycles Day at FAA Headquarters. Part of promoting "green" awareness requires information distribution to FAA employees and their concerned public.

For P2 week, a new FAA Environmentally and Economically Beneficial Landscaping Guide was developed and distributed throughout the FAA. The Environmentally and Economically Beneficial Landscaping Guide and information on recycling can be found at http://www.aee.faa.gov/aee-200/recycle2.htm. For more information contact: frank.lanzetta@faa.gov [202-267-3497].

EPA and DoD Resolve Post-ROD Issues

On October 2, 2003, EPA and DoD successfully resolved a nearly three-year post-Record of Decision (ROD) dispute that will now expedite decision-making at dozens of military Superfund cleanup sites for years to come. The ROD documents the approach that will be used to cleanup pollution at a site. EPA and DoD disagreed over the appropriate EPA oversight role in determining what actions are needed to implement and maintain land use controls which help ensure the cleanup remains protective after the remedy has been selected.

Land use controls typically allow some pollution to remain in place, as long as it can be managed safely and effectively, and not compromise human health or the environment. For instance, it may be best to cap a military landfill containing trash and other wastes rather than removing its contents, which can be quite expensive and unnecessary to ensure site safety. However, for the cap to continue to be safe, its integrity must be maintained. Land use controls help ensure, as part of the long-term maintenance of the remedy, that trees would not be allowed to grow in the cap and that service men and women or others did not dig through the cap inadvertently. Because land use controls are part of the remedy, EPA insists that land use controls be fully evaluated, designed, and implemented, just as the physical part of the remedy. In addition, EPA has an important oversight responsibility to ensure that they are and remain safe.

After lengthy negotiations first with the Navy, and later with the Army, EPA and the Navy agreed to a set of principles (the Navy Principles). The Navy Principles include land use controls in a ROD and guarantee a role for EPA in implementation and maintenance decisions of these controls. Because of EPA's and the Navy's hard work and good faith negotiations, they, along with the Army and the Defense Logistics Agency, reached a resolution that streamlined the information needed on actions required to ensure land use controls are safe. An EPA/DoD task force will soon examine further efficiencies and economies for site management and oversight.

EPA also agreed to give full and fair consideration to a new, alternative performance-based approach suggested by the Air Force. EPA will assess the Air Force's approach on a site-specific basis and see how and whether the service's proposed principles might be used to reach resolution regarding Air Force cleanups.

For further information, contact Sally Dalzell at U.S. EPA at (202) 564-2583.

Enforcement Roundup

ALJ Finds Penalty Appropriate in CAA NESHAP Case Against Fort Jackson

In an Initial Decision dated September 12, 2003, Administrative Law Judge (ALJ) William Moran found EPA Region 4's (Atlanta) proposed penalty was appropriate, and assessed the full civil penalty of $85,800 for Clean Air Act (CAA) NESHAP-Asbestos violations at the U.S. Army Training Center, Fort Jackson, S.C. The violations included failure to provide written notice prior to the renovation activity; failure to inspect facility for asbestos prior to the renovation; failure to use trained personnel during the renovation; and failure to keep removed asbestos material wet until collected for disposal. Fort Jackson stipulated it was liable for the violations, but raised as a defense that the EPA Administrator had not properly delegated authority to make the required CAA Section 113(d)(1) concurrence (with the U.S. Attorney General) on any Section 113(d) action involving violations greater than one year old. Fort Jackson also challenged application of the CAA Section 113(e) penalty assessment criterion of "size of business," as well as the overall appropriateness of the penalty. ALJ Moran rejected Fort Jackson's arguments, and found the delegation of authority exists and was properly made from the EPA Administrator. Citing the EPA Environmental Appeals Board (EAB) decision in U.S. Army, Fort Wainwright Central Heating and Power Plant, the ALJ held that consideration of the "size of business" penalty criterion is appropriate, and that Region 4's (Atlanta) application of the various CAA penalty policies in proposing its penalty was reasonable and based on the facts of the case.

Region 6 RCRA Settlement Reached for FAA's Mike Monroney Aeronautical Center

On July 28, 2003, EPA Region 6 (Dallas) signed a Consent Agreement and Final Order (CA/FO) to address violations of the Resource Conservation and Recovery Act (RCRA) at the Federal Aviation Administration's (FAA's) Mike Monroney Aeronautical Center in Oklahoma City, Okla. The CA/FO requires FAA to pay a penalty of $67,210, and orders compliance. The CA/FO alleges 10 separate counts with the majority of violations relating to the facility's failure to meet the permit exemption requirements for a RCRA generator. The counts in the CA/FO include failure to label, date, and close containers, failure to manage satellite accumulation areas appropriately, failure to update hazardous waste training, failure to maintain an adequate Contingency Plan, failure to make hazardous waste determinations, failure to label used oil tanks and containers, and failure

to comply with reporting requirements. EPA is pleased with the efforts that the FAA Mike Monroney Center has made to improve its hazardous waste management programs and to reduce the likelihood that similar violations will occur in the future.

Region 8 Issues Order to BOR Regarding Four Bears Drinking Water Treatment Plant

On October 14, 2003, EPA Region 8 (Denver) issued an Administrative Order on Consent (AOC) against the Department of Interior, Bureau of Reclamation (BOR) for violations of the Safe Drinking Water Act (SDWA) at the Four Bears Drinking Water Treatment Plant, N.D. After a July 2003 meeting with BOR, an AOC was agreed to by the parties. The BOR owns and funds the plant, but it is managed and operated by the tribe. The public water system (PWS) violated SDWA turbidity standards in April 2003, and thus provided potentially unsafe water to its customers. The Four Bears PWS operators are not adequately trained on plant operations, and the AOC requires BOR to hold the tribe accountable and comply with the AOC. The AOC includes stipulated penalties for failure to comply, and if this does not occur EPA will consider an AO against the tribe.

Region 8 Settles Action Against BIA UST Violations

On August 27, 2003, EPA Region 8 (Denver) executed a Consent Agreement and Final Order (CAFO) settling a RCRA Subtitle I - Underground Storage Tank (UST) enforcement action against the Bureau of Indian Affairs (BIA) - Standing Rock Agency, Ft. Yates Law Enforcement Facility, Ft. Yates, N.D. The Ft. Yates facility is within the exterior boundaries of the Standing Rock Sioux Indian Reservation. The CAFO requires BIA to pay a $16,943 penalty, and conduct Supplemental Environmental Projects (SEPs) worth at least $26,000. The SEPs will include removal of non-regulated heating fuel USTs, closure site assessments and, if necessary, corrective actions at any of the tank sites. The settlement also includes an environmental audit of all BIA owned or operated facilities at the Standing Rock Agency, including any of BIA's grant or contract facilities. The settlement arises from an April 1, 2003, EPA Region 8 administrative complaint alleging UST violations against Ft. Yates for failing to: maintain leak detection monitoring records; operate leak detection equipment in accordance with manufacturer's instructions; and report and investigate a suspected release of regulated product (gasoline).

Region 8 Issues SDWA Proposed Order to BIA Facilities on Pine Ridge Reservation

On July 3, 2003, Region 8 (Denver) issued a proposed compliance order/proposed order with administrative penalty pursuant to sections 1423 and 1447 of the Safe Drinking Water Act (SDWA). The Order, alleging violations of the SDWA Underground Injection Control (UIC) requirements for Class V wells, was issued to the Bureau of Indian Affairs (BIA), Pine Ridge Road Shop and Kyle Road Shop facilities on the Pine Ridge Indian Reservation in South Dakota. The Order may be the first instance of a combined penalty order/compliance order under the SDWA UIC program issued to a federal facility. The order proposed a penalty of $28,691 for UIC violations including failure to permit or discontinue the well, failure to timely submit a permit application or requested information, and failure to close or retrofit the well to prevent underground source of drinking water (USDW) contamination. The Order also requires, within 30 days, submittal of closure plans for the Class V wells or submittal of a completed permit application for continued use of the existing Class V well/disposal system.

FFEO Issues Policy on Listing Mixed Ownership Mine or Mill Sites

EPA's Federal Facility Enforcement Office issued its policy *Listing Mixed Ownership Mine or Mill Sites Created as a Result of the General Mining Law of 1872 on the Federal Agency Hazardous Waste Compliance Docket* on June 24, 2003. The Policy states that mixed ownership mine or mill sites created as a result of the General Mining Law of 1872 generally should not be included on the published list of federal facilities which have been reported to the CERCLA 120(c) Federal Agency Hazardous Waste Compliance Docket (Docket). The Policy recognizes that individual mine or mill sites should be evaluated on a case-by-case basis, and that such sites should be considered for inclusion in EPA's CERCLIS database. The policy can be found at: http://www.epa.gov/compliance/resources/policies/cleanup/federal/policymixownrshpmine.pdf

FEDFACS ON THE WEB

This and past issues of FedFacs can be found on EPA's website at: http://www.epa.gov/compliance/resources/newsletters/civil/fedfac/index.html

Editor's Note:

In the Summer 2003 issue, some information was inadvertently omitted. In our story on EPA Region 4's "CWA/SPCC Compliance Assurance Initiative for Federal Facilities," those wishing to find out more about the initiative can contact: Tony Shelton at (404) 562-9636. In our article "EPA Sponsored Environmental Management System Workshops," Denver should have been among the cities where training has been given.

In Brief

EMRs at Texas FBOP/FMC and VA Medical Center — U.S. EPA Region 6 (Dallas) conducted environmental management reviews (EMRs) at the Federal Bureau of Prisons (FBOP) Federal Medical Center (FMC), Fort Worth, and the Veterans Administration Medical Center (VAMC) in Dallas. The EMRs examined each facility's environmental programs and management system to determine the extent protection programs and plans have been developed and implemented. The Dallas VAMC is one of 17 VA medical centers selected by the Department of Veterans Affairs Health Administration to participate in a cooperative partnership in which EPA conducts EMRs to help improve facility compliance.

EPA staff worked with each facility to design the parameters and scope of the review prior to its visit. Reviews included an in-brief by the EPA team, a tour, interviews with appropriate staff from top management to staff level, and an out-brief. Both reviews were well received by the facilities. FBOP has requested further assistance from EPA Region 6 in designing its environmental management system. A draft report of the recently conducted VAMC EMR is in review by the EPA Region 6 EMR team. EPA Region 6 will also conduct EMRs in 2004 at VA medical centers in Temple, Texas and the U.S. Army Camp Stanley Storage Facility in Boerne, Texas.

The DoD Environmental Data Quality Workgroup and Intergovernmental Data Quality Task Force jointly sponsored an invitational roundtable on the "Analysis of Perchlorate in Environmental Samples" on 23 October 2003, in Dallas, Texas. This roundtable enabled government and private sector experts (chemists) to examine problems/limitations with current perchlorate sampling and testing methods, discuss emerging technology, and recommend a path forward for developing, validating and promulgating (e.g., through SW-846) improved, performance-based perchlorate sampling and analysis methods. Participants included USACE, NAVFAC, AFCEE, AFIOH , EPA/ORD, EPA/OSW, EPA Regional staff, state regulatory agencies, academia, and private labs. More information can be found at: http://www.epa.gov/swerffrr/recent additions.htm.

Environmentally Preferable Purchasing (EPP) Vendor Fair — For the third consecutive year, U.S. EPA Region I (Boston) organized a session entitled "Federal Focus on EPP" at the Massachusetts 9th Annual Buy Recycled and EPP Vendor Fair and Conference in Worcester, Mass. (October 8, 2003). Tailored for federal purchasing and facility staff, the session discussed EPA's Federal Facilities Program, described environmental management systems (EMS), and explained how Environmental Management Reviews (EMRs) can prepare a facility to implement an EMS. A follow-up presentation explained how to incorporate EPP into an EMS. The session also presented an on-line purchasing system that tracks recycled content purchases (a requirement under RCRA section 6002), and provided tips on selecting a recycling service for obsolete electronics. The EPP Vendor Fair featured approximately 100 exhibitors of "green" products and services. Over 800 attendees from universities, hospitals, and government agencies participated in the conference, making it the largest, longest running event of its kind in the nation.

Government Senior Manager EMS Training — U.S. EPA Region 6 (Dallas) Federal Facilities Program sponsored two separate environmental management system (EMS) training for senior federal leaders in the Dallas/Fort Worth area. The training informed managers about EMS requirements and strategies at federal agencies. The first two-hour session was held September 15, 2003 at the Federal Bureau of Prisons Medical Center in Fort Worth, and was attended by 35 senior managers from several federal agencies. The second session was held September 29, 2003 during the monthly Dallas/Fort Worth Federal Executive Board meeting, and was attended by 29 federal executives from 23 different agencies and bureaus. Dr. Gary Chiles of MWH, Inc. conducted both sessions.

U.S. EPA Regions 5 and 7 Sponsors EMS Workshop — On August 5-7, 2003, EPA Regions 5 (Chicago) and 7 (Kansas City) hosted "Designing Your EMS: A Federal Facility Workshop" at the Region 7 Offices in Kansas City, Kan. Over 100 federal facility representatives from various agencies attended. Workshop participants learned basic ISO 14001 elements of an environmental management system (EMS), and the steps needed to implement an EMS at their facilities. The workshop included a panel of several federal facility representatives who shared their EMS implementation experiences at their facilities. David Coughey, Department of Energy's Kansas City, Mo. Plant, outlined the EMS implementation timeline, resource commitment, benefits and lessons learned during certification. Steven Coyle, Robins Air Force Base (RAFB), Ga., explained the RAFB methodology for continuous process improvement including how they started, identified RAFB environmental aspects, and lessons they learned. Robert Lallier, NASA Glenn Research Center Plum Brook Station, Ohio, spoke about NASA's implementation philosophy of integrating the pre-existing ISO 9001 Business Management System with the ISO 14001 EMS system. He explained the process for achieving their ISO 14001 registration and identified the facility's expected benefits and lessons learned.

During the workshop's breakout session, agencies were grouped together by similar mission/facility functions and discussed where they *Continued on* ***page 27***

Federal Agency Compliance Tracking System (FACTS)

http://www.epa.gov/idea/fedfac

The U.S. Environmental Protection Agency's Federal Facilities Enforcement Office (FFEO) released the final version of the Federal Agency Compliance Tracking System (FACTS) on December 1, 2003. FACTS, formerly known as the On-line Environmental Compliance Status Report (ECSR), enables users to research, track and monitor the environmental compliance history and current status of individual regulated federal facilities from a single access point. Now EPA employees, registered federal, state, local and tribal government agencies can view and analyze inspection, enforcement and compliance data in EPA's national database systems, and query data by federal agency, EPA region and state. FACTS was first released as a pilot version on November 30, 2002. Comments received during the pilot period led to enhancements in the new version, including the capability to search for compliance and enforcement information for a single facility, entire agency, or other federal government entity.

FACTS is available as a partnership site on EPA's Online Tracking Information System (OTIS), a web-based information system providing facility-specific information on inspections, enforcement and compliance data. To use OTIS and/or FACTS, a one time user registration is required; no username or password is necessary. Non-registered users can obtain instructions and register at: http://www.epa.gov/idea/otis/register by selecting the link: Obtaining Gov't Access/Registering for OTIS. To visit FACTS, go to: http://www.epa.gov /idea/fedfac.

Further instructions for using the new FACTS can be found in the link: "About this Search Tool" located at the top of the home page. If you have any questions or comments about FACTS, please e-mail Richard Satterfield at: satterfield. richard@epa.gov. Questions or comments pertaining to OTIS or access problems during registration should be directed to Rebecca Kane at: kane.rebecca@epa.gov.

COMPLIANCE ASSISTANCE CENTER DEVELOPMENT CONTINUES

EPA's Federal Facilities Enforcement Office (FFEO) continues to develop an enhanced web-based **Environmental Stewardship and Compliance Assistance Center** for federal facilities. The existing compliance assistance center, FedSite (http://www.epa.gov/fedsite) will be expanded, and all federal government compliance assistance resources integrated into one, independent site eventually supported and directed by member agencies.

Since late October, FFEO staff has been in discussions focused on the day-to-day operation of the expanded Center with representatives of the Army Corps of Engineers Construction, Engineering and Research Laboratory (CERL) located in Champaign, Ill. Staff from FFEO and CERL are drafting an interagency agreement for operation of the enhanced Center. CERL currently manages the DoD's environmental web site, DENIX. Over the past decade, CERL has performed several federal facility environmental audits, and has proven capabilities and detailed knowledge of a variety environmental compliance issues using web-based technologies. The new Center is expected to be operational this spring.

For more information about the Federal Facilities Environmental Stewardship and Compliance Assistance Center, please contact Mike Shields at: shields.mike@epa.gov or 202-564-9035.

IN BRIEF

Continued from ***page 26***

were in the EMS process, problems encountered and solutions. This session allowed agencies to share information with their counterparts and develop a network to address issues and share information in the future.

Immediately following the workshop, Martin Elliott, from the Army Office of the Director of Environmental Programs, provided Army personnel with updated guidance on implementing ISO 14001. Please forward suggestions or comments for future conferences or workshops to Diana Jackson, Region 7, (913) 551-7744, jackson.diana@epa.gov or Lee Regner, Region 5, (312) 353-6478, regner.lee@epa.gov.

Greening the Government Conference – U.S. EPA Regions I, II, and III and the Northeast Waste Management Officials (NEWMOA) sponsored the first comprehensive Greening the Government Conference on June 4-6, 2003 at the Rittenhouse Sheraton Hotel in Philadelphia (a green seal of approval hotel). The conference included topics such as: energy and water conservation, beneficial landscaping, and "green" building design, procurement, meetings, cleaning products, and cafeterias. Speakers were affiliated with federal agencies, states, academia, public interest organizations, private companies and consultants. Bill McDonough, internationally known designer, architect and proponent of the "Next Industrial Revolution" was the keynote speaker. Conference participants were given information and tools to help initiate "green" practices at their facilities, and discussed future options for developing a federal/state network to share and promote sustainable projects and programs. There is strong interest in designing an Eastern Federal Network for Sustainability similar to the successful Western Federal Network for Sustainability. EPA Regions I and II will lead the initial coordination of the Eastern Network.

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UpcomingEvents

Workshops, Conferences and Training

JANUARY 2004

National Conference on Science, Policy and the Environment: Water for a Sustainable and Secure Future

January 29–30, 2004 • Washington, D.C.
Info: http://www.ncseonline.org/NCSE conference/2004conference.

FEBRUARY 2004

EPA 40 CFR 68 Risk Management Plan Seminar

February 5, 2004 • Charlotte, NC
How to update and evaluate your existing risk management plan to comply with the 5-year re-submission requirements of the U.S.EPA RMP Rule (40 CFR 68) and recently published EPA RMP Re-submission Requirements. To register or get more information contact: PSRG at 713-849-9460 (1-800-250-8511) or via e-mail: psrghouston@psrgroup.com; or visit http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/RMPSeminars.htm#charlotte

MARCH 2004

Greenprints 2004: Sustainable Communities by Design

March 18–19 • Atlanta, GA
Info: Southface Energy Institute, www.southface.org/home/g2k3/g2k3index.html.

APRIL 2004

NDIA 30th Environmental & Energy Symposium & Exhibition

April 5-8 • San Diego, CA
http://register.ndia.org/interview/register.ndia?#April2004

National Environmental Assistance Summit

April 19–22, 2004 • Baltimore, MD.
For registration and additional information, visit: http://www.p2.org/summit2004.

8th Canadian Pollution Prevention Roundtable

April 28-29, 2004 • Ottawa, Ontario, Canada
Contact: Sue McKinlay, Canadian Centre for Pollution Prevention. Telephone: 1-800-667-9790 in North America; or 519-337-3425 E-mail: sue@c2p2online.com. Web site: http://www.c2p2online.com/main.php3?session=ion=98&doc_id=65

MAY 2004

International Hazardous Spills Conference

May 4-6, 2004, 2004 • San Antonio, TX
For additional information, visit the conference website: http://www.hotzone.org/Spills/index.htm