



COMMONWEALTH of VIRGINIA

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Memorandum

To: The Honorable Mark R. Warner

From: Robert G. Burnley *Bob*

Date: December 1, 2005

Subject: The Department of Environmental Quality's Annual Evaluation of Pollution Prevention Activities

I am pleased to provide you with a copy of the Department of Environmental Quality's (DEQ) Pollution Prevention Report for 2005. This annual report has been prepared as required by §10.1-1425.17 and highlights the DEQ's pollution prevention efforts during 2005. Copies of this report will be available from the DEQ's website at: <http://www.deq.virginia.gov/p2/pubs.html>.

During 2005, legislation was adopted that codified the Virginia Environmental Excellence Program (VEEP). The VEEP encourages the development and implementation of environmental management systems and environmental innovation. VEEP participants are eligible for incentives such as reduced fees and the ability to request approval to use alternate compliance methods. DEQ's Pollution Prevention program also launched several new programs aimed at reducing the potential for mercury emissions and contamination in Virginia's environment, including auto switch removal in auto salvage operations, fluorescent bulb recycling at commercial properties and implementation of best management practices in dental offices.

In 2006, DEQ's Pollution Prevention Program will continue to provide businesses and citizens in the Commonwealth with information on pollution prevention through its programs and initiatives. Additional information about pollution prevention activities and programs is available from the DEQ's Pollution Prevention website at: <http://www.deq.virginia.gov/p2/>.

If you have any questions concerning this report or if you would like to discuss the information provided, please contact me.



Pollution Prevention 2005

December 2005

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From the Director



DEQ's multifaceted pollution prevention program enjoyed a particularly successful year in 2005. Led by the Office of Pollution Prevention, the Department entered into new partnerships, expanded its outreach into new business sectors and continued the evolution of its nationally recognized performance-based program, the Virginia Environmental Excellence Program.

Significant accomplishments of 2005 include:

- Adoption of legislation by the General Assembly which codifies and expands the Virginia Environmental Excellence Program (VEEP), the Department's voluntary recognition and incentive program. VEEP encourages the development and implementation of environmental management systems and environmental innovation.
- Recognition of the Department by the national Hospitals for a Healthy Environment program as a "Champion of Change" for the successful development and initiation of the program in Virginia.
- Launching of several new programs aimed at reducing the potential for mercury emissions and contamination in Virginia's environment, including auto switch removal in auto salvage operations, fluorescent bulb recycling at commercial properties and implementation of best management practices in dental offices.
- Co-sponsorship of the highly successful Virginia's Sustainable Future Summit in Richmond in September.

I am confident that these efforts will bring results not only in the form of increased environmental quality but also through the partnerships they have produced. Our future progress will depend on partnerships and innovations, and I am pleased that DEQ continues to be a leader in both of these areas.

Robert G. Burnley



Virginia Environmental Excellence Program

2005 was a year of significant change for the Virginia Environmental Excellence Program. Most notably, the Virginia General Assembly adopted legislation codifying the program during its 2005 session. As stated in the law, which became effective on July 1, VEEP is intended to “recognize facilities and persons that have demonstrated a commitment to enhanced environmental performance and to encourage innovations in environmental protection.”

Facilities must demonstrate their commitment to environmental performance through the development of environmental management systems (EMS), implementation of pollution prevention programs and compliance with environmental regulations. There are two forms of DEQ recognition: positive publicity and regulatory flexibility (see the section below entitled “VEEP Incentives” for more information).

In addition to outlining the program’s purpose, criteria and structure, the legislation added a new level of participation – the “Extraordinary Environmental Enterprise” or “E4” category. Thus, the program now provides three types of participation options for interested facilities:

- E2 (Environmental Enterprise) for facilities that have made significant progress toward the development of an EMS, have made a commitment to pollution prevention and have a record of sustained compliance with environmental regulations.
- E3 (Exemplary Environmental Enterprise) for facilities that have exceeded the E2 requirements and have a fully-implemented EMS.
- E4 for facilities that have exceeded the E3 requirements, have completed at least one full cycle of an EMS as verified by a third-party auditor and have demonstrated a commitment to continuous and sustainable environmental progress and community involvement.

At the end of 2005, there were more than two hundred facilities in the program, with almost three quarters (145) at the E2 level and fewer at the E3 (52) and E4 (8) levels. The Office of Pollution Prevention (OPP) administers VEEP, reviewing applications and renewals, performing site visits for E3 and E4 applications, conducting compliance reviews and coordinating recognition events.

Environmental Results Achieved by VEEP Facilities

For facilities to be considered in “good standing” with the program, they must submit annual reports on their environmental performance to DEQ by April 1 for the previous calendar year. OPP significantly revised the reporting format for the 2004 reporting year, emphasizing quantified environmental results. In addition, DEQ contracted with a vendor for the development of an on-line reporting system in mid-2005. The new system is expected to be in place in time for participants to submit calendar year 2005 reports.

As a result of the changes related to VEEP reporting, the Department considers both 2004 and 2005 “transitional” reporting years. Tracking and reporting measurable environmental results is critical for the success of the participants’ EMSs. In addition, VEEP environmental performance data will facilitate DEQ’s ability to support innovative proposals from facilities in the future. Despite the limitations of data reported thus far, basic analysis of the VEEP annual performance reports received this year

reveal that:

- Slightly less than half reported some type of solid waste recycling project.
- A third reported solid waste reduction efforts.
- A third reported energy reduction successes.
- A quarter reported reductions in water use.

In addition, many facilities reported cost savings resulting from their pollution prevention efforts, which total almost \$3.5 million:

- \$10,100 in avoided in hazardous waste disposal costs.
- \$137,122 recovered through solid waste recycling activities.
- \$603,850 in reduced solid waste disposal costs.
- \$706,062 saved as a result of reduced water use.
- \$1,363,075 in avoided wastewater discharge costs.
- \$675,027 in energy savings.

Success stories included by participants in their reports provide a snapshot of VEEP facility accomplishments:

- Marina: Recycled 110 gallons of antifreeze, saved about \$900 by burning the used oil in their shop for heating purposes and distributed a pamphlet entitled "21 Steps to Make Your Boating Waters Cleaner".
- Local Government: Reduced water use by more than two million gallons at their aquatic center.
- Furniture Manufacturer: Reduced air emissions by 108 tons, solid waste by 53 tons and hazardous waste by 8 tons.
- Transportation Company: Recycled 1.56 tons of solid waste and reduced water discharges by 478,000 gallons.
- Food Manufacturer: Reduced solid waste by 787 tons and recycled 322 tons of solid waste.
- Electronics Manufacturer: Reduced air emissions by 27 tons and recycled 2,675 tons of solid waste.
- Food Processor: Reduced solid waste by 195 tons and cut water use by almost 6.5 million gallons.
- Food Processor: Reduced hazardous waste by the equivalent of 66 drums, recycled 254 tons of solid waste, cut water use by 117 million gallons and reduced water discharges by 97 million gallons.
- Marina: Reduced solid waste by 2.6 tons.
- Federal Facility: Preserved 125 acres in a training area for bald eagle habitat.
- Chemical Manufacturer: Recycled 6.75 tons of solid waste, reduced water use by almost 700 million gallons, eliminated over 6,000 pounds of air toxics and reduced emissions of other air emissions by more than 5 tons.
- Chemical Manufacturer: Reduced hazardous waste by more than seven million pounds, recycled over 43 tons of solid waste and eliminated over 50 tons of air emissions.



VEEP Incentives

As noted above, DEQ provides two types of participation incentives for VEEP, recognition and regulatory flexibility.

Recognition Ceremonies. OPP arranges recognition ceremonies at facilities all around the Commonwealth. During the past year, twenty such events were held; most of them involved DEQ regional office staff, Central Office staff, local elected officials and employees of the facility. Pictures from VEEP ceremonies at Lockheed Martin in Manassas (top) and Smithfield Foods appear at right.



Regulatory Flexibility. DEQ has found that regulatory and administrative flexibility are powerful incentives to drive improved environmental performance. With the Environmental Protection Agency (EPA) and other states, the Department is working to develop meaningful incentives tied to performance. At the same time, the Commonwealth has taken independent steps on incentives that have put VEEP in the forefront of the national discourse. Specifically, legislation adopted during the last two General Assembly sessions has: (1) provided fee reductions for VEEP facilities, and (2) created a mechanism for facilities to request alternate compliance methods for innovative approaches.

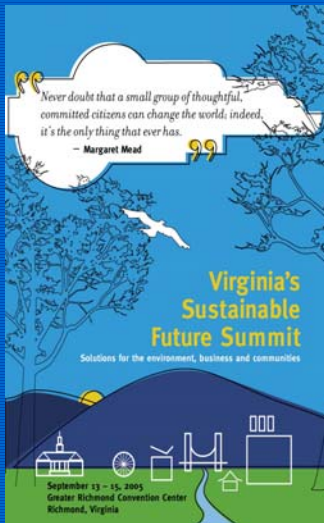
- **Annual Permit Fee Discounts for VEEP Facilities:** In 2004, the General Assembly passed legislation establishing annual fees for facilities with certain types of waste and water permits. The legislature also authorized discounts for those facilities in VEEP; Virginia is the only state in the nation to offer this type of financial incentive for participants in its performance-based program.

The discount levels were established by regulation in 2004:

- Hazardous waste: potentially 5% for E2 facilities and 10-20% for E3 & E4 facilities (depending on the total amount discounted for all facilities)
- Solid waste: potentially 10% for E2 facilities and 20% for E3 & E4 facilities
- Water: potentially 2% for E2 and 5-20% for E3 & E4 facilities (depending on the total amount discounted for all facilities)

Reduced annual permit fees for VEEP facilities were available for the first time in 2005. DEQ provided discounts of more than \$72,000 for VEEP facilities: \$4,060 for hazardous waste permits at 17 facilities, \$58,962 for solid waste permits at 22 facilities and \$9,054 for water permits at 23 facilities.

- **Alternate Compliance Methods.** The 2005 VEEP law authorizes DEQ's citizen Boards to grant "alternate compliance methods" for facilities at the E3 and E4 levels. In general, the types of requests anticipated under the provision include reduced monitoring and reporting frequency, streamlined permit application and renewal processes and the ability for a facility to make operational changes without prior approval from the Department. As outlined in the law, only alternate compliance methods that meet the purpose of the



applicable regulatory standard, achieve the purpose through increased reliability, efficiency or cost effectiveness and provide equal or greater environmental protection will be approved; proposals that alter existing standards, increase pollutants released to the environment, increase impacts to Virginia's waters or result in a loss of wetland acreage will not be approved. Depending on the method requested, the changes may require a permit amendment.

In the fall of 2005, the Department developed a procedure for facilities to request an alternate approach. Several pilot proposals are expected to be submitted in early 2006.

Virginia's Sustainable Future Summit

DEQ, along with a number of other organizations, co-sponsored the "Virginia's Sustainable Future Summit" in mid-September in Richmond. The Summit marked the third time that a consortium of organizations have come together to present a forum on statewide sustainability issues; previous sustainability conferences were held in 1999 and 2001. More than 400 community, business and government representatives, along with builders, environmental specialists, and educators, gathered to learn about and discuss the Summit's theme: "Solutions for the Environment, Business and Communities".

The Summit was the result of a public/private partnership, including three organizations new to the effort, Virginia Commonwealth University, the Virginia Manufacturers Association and Environmental Solutions, Inc., who joined previous supporters such as the Virginia Sustainable Building Network, the Virginia Department of Mines, Minerals and Energy and DEQ.

Summit participants listened to experts, discussed issues and, as requested by the Summit organizers, developed action-oriented recommendations for state leaders. A post-Summit review of the recommendations revealed a number of major themes. These include the need for:

- A "Virginia Sustainable Development Plan" to implement sustainable practices across all sectors of the economy and government.
- Major educational programs to provide information to citizens, businesses and government organizations on preferable sustainable practices and ways to implement these practices, including the procurement of goods and services and how to maximize their use and benefit.
- Financial incentives to promote high performance buildings and community development, including energy efficiency and beneficial use of by-products.
- Improved coordination of transportation and land use planning and funding to implement plans.
- An energy standard for all buildings constructed or rehabilitated in the Commonwealth.

It is expected that the recommendations will form the basis of future policy discussions.

DEQ's Voluntary Mercury Reduction Initiatives

Fluorescent Lamp Recycling Pilot Project: Commercial Property Management Sector

In January, OPP partnered with the EPA Region III Waste Minimization Program to initiate a fluorescent lamp outreach pilot program focused on the commercial property management sector. Today's fluorescent lamps typically contain less than 10mg of mercury vapor. Nationwide, however, more than 500 million lamps are replaced each year, and less than 26 percent of those lamps are actually recycled. The remainder are disposed of as solid waste, with many ending up broken in dumpsters or burned in solid waste incinerators, potentially releasing mercury into the environment. For commercial operations, improper disposal of waste lamps could be a violation of hazardous waste regulations.

OPP met with a number of the largest portfolio holders in the Northern Virginia region. As a result of these meetings, three of the top ten property managers committed voluntarily to recycle 100% of their lamps by the end of the calendar year. Those agreeing to recycle were Trammell Crow, Transwestern Commercial Services and EMCOR, which



have combined holdings of approximately 62 million square feet, representing approximately 2 million fluorescent lamps in use. These companies have committed to reduce mercury as part of EPA's National Partnership for Environmental Priorities (see page 10). A picture from Transwestern's NPEP ceremony is at left. In addition, all three companies

have registered their individual properties with Businesses for the Bay (see page 12), a regional pollution prevention program.

OPP and its EPA counterparts held a meeting in December to encourage additional property management companies to commit to recycle their lamps. DEQ is also using this effort as an opportunity to promote fluorescent lamp recycling statewide. With EPA, OPP produced a poster entitled, "Recycle Your Fluorescent Lamps, Virginia!" The poster refers to a website that OPP developed to serve as an information hub on lamp recycling issues. The poster will be distributed statewide with targeted mailings to commercial property management companies, state agencies, planning district commissions, and local governments.



"Virginia Switch Out" Pilot Project for Auto Switches

In 2005, OPP partnered with the Virginia Automotive Recycling Association, or VARA, to sponsor a pilot project to remove mercury tilt switches in automobiles as part of the dismantling and salvage process. Mercury-containing switches in automobile scrap have been identified as a primary source of mercury air emissions from the steel industry.

The "Virginia Switch Out" project was developed as the first component of a comprehensive environmental program for salvage operators that VARA intends to develop in the future. OPP contracted with a mercury recycler to provide shipping and processing of the mercury auto

switches. Participants were sent a pre-paid shipping container and guidance on the removal, collection and handling of the mercury switches. VARA actively promoted and coordinated the pilot project with its members, and more than thirty facilities participated in the program.



The pilot project concluded at the end of October. Approximately 1,500 switches were collected during the pilot, capturing nearly five pounds of mercury that could have been released to the air when melted for steel. Many participating facilities started slowly citing a “learning curve” for the removal process. However, facilities reported that the removal was generally straightforward, and the time required to remove the switches was typically less than two minutes per switch.

More than 22 states have enacted some sort of legislation or program related to their removal.

Best Management Practices Manual for Virginia Dentists

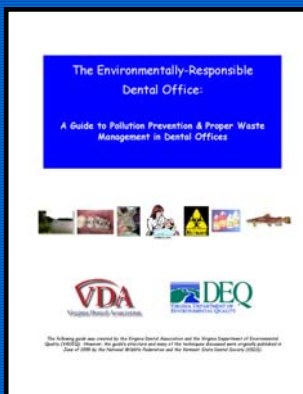
Common dental amalgam is comprised of 49% mercury and 35% silver; the remainder is tin, copper and zinc. In compound, mercury is bound to the other metals and theoretically does not pose harm to people with amalgam fillings in their teeth. Amalgam waste, however, if not recycled, is considered to be hazardous, and EPA encourages the use of best management practices to minimize amalgam use and waste, capture unused amalgam and old fillings and ensure proper management.

In 2004, OPP began working in partnership with the Virginia Dental Association's Environmental Committee to develop standardized guidance on the proper management of mercury-containing amalgam. During the last year, OPP and the committee reviewed guidance documents from EPA, the American Dental Association and various state organizations. In addition, the committee met with DEQ and pretreatment coordinators from wastewater treatment facilities to develop guidance to address the specifics of Virginia's regulations and programmatic needs.

OPP and Virginia Dental Association completed, *“The Environmentally-Friendly Dental Office: A Guide to Pollution Prevention & Proper Waste Management in Dental Offices”* in the late summer. The manual is unique in that it not only addresses pollution prevention techniques for amalgam management, but also addresses all waste streams typically found in a dental office setting. The manual was printed and distributed to all of the more than 3,000 dentists in the Commonwealth.

“Greening” the Healthcare Industry: Virginia Hospitals for a Healthy Environment

Virginia Hospitals for a Healthy Environment, or VH2E, is DEQ's voluntary pollution prevention initiative for all healthcare facilities in the Commonwealth. VH2E was developed in support of the national Hospitals for a Healthy Environment (H2E) program, and its aim is to encourage Virginia healthcare facilities to embrace H2E's goals for mercury elimination and waste and toxics reduction.



In 2004, the program's first full year of implementation, VH2E achieved great success in recruiting and recognizing new members, as more than eighty facilities signed on to the program. In February, DEQ was honored for its efforts when it received the "H2E Champion" award at a ceremony in Chicago held during the National Environmental Partnership Summit. A picture from the ceremony appears at right.



This past year, OPP focused on encouraging participants to develop substantive pollution prevention programs through increased technical assistance and communication/information sharing and integration with the larger national H2E network.

Highlights from 2005 include:

- Participation in the program grew to 87 facilities.
- Presentations or technical assistance site visits were conducted at Lewis-Gale Medical Center, Twin County Regional Hospital, Tazewell Community Hospital, Clinch Valley Medical Center, Stonewall Jackson Hospital, Alleghany Regional Hospital, Bath County Community Hospital, Martha Jefferson Hospital, Bon Secours Virginia Healthsource, Patient First, two Centra facilities and two Carillion hospitals.
- More than 2,500 copies of the, "Does This Go in the Redbag?" poster, which covers proper regulated medical waste and solid waste disposal techniques, were distributed.
- A workshop on environmental compliance issues for the healthcare industry, attended by forty facility managers, was co-presented with the Virginia Hospital & Healthcare Association.
- The first informational roundtable to explain the compliance assistance visits to hospitals planned by DEQ for 2006 was held in November.



Next year, OPP will continue its focus on the development of participants' pollution prevention programs through outreach and technical assistance. In addition, emphasis will be placed on the documentation of reductions in mercury, toxics and solid waste.



Energy Efficiency & Renewable Energy

Since the late 1990s, OPP has operated as a resource for energy efficiency and renewable energy information. DEQ expanded OPP's focus to include energy efficiency and renewable energy in recognition of the fact that Virginia continues to face challenges to air quality such as ozone non-attainment, regional haze, fine particulates and toxic air pollutants. DEQ believes that it is appropriate for the agency to promote energy efficiency and renewable energy alternatives as a strategy to reduce air pollution sources. DEQ's primary activities related to energy efficiency and renewable energy are technical assistance and partnering with other organizations.

Technical Assistance. OPP offers free energy assessments to interested facilities. The Office also maintains the Virginia Information Source for Energy website, or VISE, as a repository for energy

conservation and renewable energy information resources pertinent to the Commonwealth.

Partnerships. OPP collaborates with various organizations to promote energy education, “clean” commuting and the value of energy efficiency and renewable energy. The Department participated in a number of environmental and energy conferences and events throughout the Commonwealth, including the Virginia Energy Fair and the Association of Energy Conservation Professionals Annual Expo. For example, OPP promoted the VISE website at the Henrico County Energy Fair at the County Government Center on October 6th and 7th, which took place during National Energy Awareness Month. Almost 500 County sixth grade students and 400 adults attended the event, which featured exhibitors from the private sector, state and federal government agencies. A picture from that event is at right.



Clean Commute Day. DEQ joined the American Lung Association and a number of other statewide partners to host Virginia's 4th consecutive Clean Commute Day (CCD). CCD is held on the first Friday in May and is used to promote the use of alternative modes of transportation. Virginians across the Commonwealth were encouraged to walk, bike, carpool, take public transit or use an alternative-fueled vehicle to get to their workplace or tele-work in an effort to reduce outdoor air pollution.

In addition to being encouraged to use an environmentally friendly mode of transportation that day, Virginians were also invited to participate in a number of local events that took place across the Commonwealth. Local events featured staging areas, commuter appreciation activities, free food, prizes, entertainment, alternative-fueled vehicle displays and informational booths. These events were held in Charlottesville, Fredericksburg, Hampton Roads, Loudoun, Prince William, Richmond, Roanoke and Winchester (OPP exhibited at the Richmond event). DEQ also provided funding for radio and bus signs promoting Clean Commute Day which had the slogan “Get aware of your air”.



Outreach to the Hospitality Industry

2005 was a year of transformation for DEQ's initiative to promote pollution prevention strategies for the hospitality industry. Highlights for the year included new minimum program entry requirements, technical assistance outreach to the industry and new partnerships with the Virginia Tourism Corporation and the Virginia Hospitality & Tourism Association.

Core Activities. Many resources and partnerships resulted from a regional conference that DEQ co-sponsored in 2004 entitled, “*Greening the Hospitality Industry: Attracting Business, Saving Money, Protecting the Environment.*” Since that time, the Virginia Tourism Corporation (VTC) has met regularly with OPP to discuss ideas for improving the program. In January, a requirement that facilities attest to meeting a minimum number of pollution prevention activities in order to be a participant was added. These core activities consist of:

- Optional Linen Service: Sheets and towels are not automatically

changed every day.

- Recycling: The facility must provide guests with the opportunity to recycle during their stay.
- Water Conservation: The facility must have a plan in place for conserving water usage.
- Energy Conservation: The facility must have a plan in place for energy conservation.

In addition, OPP is considering adding a requirement that participants offer "green" conference and meeting packages, including such items as recycled content paper use, reusable coffee cups, etc., as a core activity.

Technical Assistance. DEQ offers technical assistance to interested facilities using a nationally known certification standard for the hospitality industry. The agency's contractor has worked with six different facilities, four of which are expected to be certified: Mountain Lake Hotel in Pembroke, the Wyndham Hotel near the Richmond airport, Wintergreen Resort in Nelson County and the Inn at River Bend Bed & Breakfast in Pearisburg.

Partnerships. As mentioned, the VTC has become increasingly more involved in guiding the program administration. Together with the Virginia Hospitality & Tourism Association, the industry is taking ownership of the program's marketing and operations and making recommendations to improve its viability. Together, these two organizations plan to revise the program's image. They are developing a marketing strategy that will include a new logo that will be integrated into their other marketing materials. Their intent is to make the program a valued-added product for the tourism industry.



Outreach to Reduce Priority Chemicals: the National Partnership for Environmental Priorities

EPA's National Partnership for Environmental Priorities (NPEP) is focused on reducing 31 Priority Chemicals found in the nation's products and wastes. OPP works closely with EPA Region III to enlist facilities to voluntarily join NPEP. Facilities commit to seeking solutions that eliminate or substantially reduce the chemicals in production or recovering or recycling the chemicals where they cannot easily be eliminated or reduced at the source.

EPA has established a goal of reducing the amount of Priority Chemicals reported to the Toxics Release Inventory by ten percent by 2008, using the year 2001 as a baseline. In 2001, generators reported 84,015,526 pounds of Priority Chemicals; Virginia facilities contributed approximately 890,000 pounds. By the end of 2005, Virginia had eight facilities that had committed to a reduction of over 200,000 pounds of Priority Chemicals. Benefits to NPEP facilities include technical assistance, high level positive recognition and reduced liabilities and risks.

Virginia facilities have already made considerable progress toward achieving their NPEP commitments. Moog Components Group, located in Blacksburg, designs, develops, and manufactures slip rings, twist capsules, motors and resolvers, and security and fiber optic components

and systems for the industrial, commercial, aerospace, and military markets. Under NPEP, the facility set a goal to eliminate lead in their commercial slip ring product line. The facility became a lead-free facility by converting all of their soldering processes to a lead-free solder, reducing their use of leaded solder by 250 pounds annually. Moog has expanded its lead-free solder requirements to outsource manufacturing facilities in the Dominican Republic and Costa Rica. They also strive to specify lead-free components such as connectors from vendors where possible. Moog's accomplishments were marked at a ceremony attended by representatives of EPA Region III and DEQ (see above).



Commitments from Virginia NPEP facilities:

- **Flowserve Corporation** in Chesapeake has committed to reduce hazardous waste generation to less than 90 pounds of waste generation per million dollars revenue. Methyl Ethyl Ketone (MEK) poses a significant human health and environmental hazard. MEK can burn the skin and eyes, while vapors may cause dizziness or suffocation. If the solvent catches fire, it can produce irritating, corrosive or even toxic gases. Due to the risks associated with the use of MEK, Flowserve set a goal to completely eliminate the use of MEK. A new product was tested and found to be a perfect substitute. They intend to eliminate four hundred gallons of MEK annually. In addition, Flowserve is working to reduce Volatile Organic Compounds by 25 percent and hazardous waste generation by 50 percent.
- **General Electric Consumer Products, Fanuc Automation** in Charlottesville has committed to reduce their use of lead through the substitution of a lead-free solder, which is expected to reduce their use of lead by 238 pounds by the end of 2005.
- **General Electric Consumer Products, Winchester Lamp Plant,** is working to replace lead solder with a tin/copper or tin/antimony alloy solder to reduce the quantity of lead in waste. The facility has already recorded a reduction of over 400,000 pounds of lead in waste and a reduction of 50% of lead from solder (100,000 pounds).
- **Sentara Williamsburg Community Hospital** has committed to removing mercury from the hospital by replacing 172 sphygmomanometers, or blood pressure cuffs. The hospital has already documented the elimination of 41 pounds of mercury.
- **Southern Graphics Systems** in metropolitan Richmond has committed to reducing lead by replacing the lead anodes in their processes. The company has documented a lead reduction of 310 pounds.
- **Virginia Auto Recyclers** in Winchester has committed to remove mercury from light switch assemblies during disassembly and ship it to a licensed recycler and remove or recycle lead from lead battery terminals. By late August, the facility had recycled 960 grams of mercury and 240 pounds of lead.



Businesses for the Bay

Businesses for the Bay, or B4B, is a voluntary pollution prevention program targeting facilities in the Chesapeake Bay watershed. There are more than 698 participants and 125 mentors in the program. In 2005, Virginia participants reported approximately 115 million pounds of waste reduction and recycling and over \$3.8 million in cost savings due to pollution prevention efforts. Virginia members make up over 40% of the participating facilities at 302 and 40% of the program mentors at 54. OPP actively promotes the program through a variety of approaches, including presentations, directed mailings, a website and site visits to both potential members and member facilities. In support of the efforts of B4B, Virginia has pursued partnerships and reciprocal agreements with other pollution prevention initiatives, such as VEEP, the Elizabeth River Project (a pollution prevention initiative focused on the Elizabeth River in Norfolk) and the Virginia Clean Marinas Program.

On November 3, the Commonwealth's participants were honored with a total of seventeen B4B Excellence Awards, more than three-quarters of all the awards presented. The facilities (whose representatives are pictured at right) recognized at a ceremony were:



- **Christopher Newport University**, Grounds Department (Newport News): Outstanding Achievement for a Government Facility - State Government
- **Commander, Navy Region, Mid-Atlantic**: Outstanding Achievement for a Government Facility - Federal Government
- **Fort Lee** and **Fort Monroe**: Outstanding Achievement for a Government Facility - Federal Government
- **Hopewell Regional Wastewater Treatment** and **Fairfax County Government - Department of Vehicle Services**: Outstanding Achievement for a Government Facility - Local Government
- **Fairfax County Government - Wastewater Management Program**: Outstanding Achievement for Nutrient Reduction
- **Waste Management of Virginia, Maplewood Recycling** (Jetersville) and **Smithfield Transportation** (Smithfield): Outstanding Achievement for Pollution Prevention - Large Facility
- **Ukrop's Food Group** (Richmond): Outstanding Achievement for Pollution Prevention - Medium-Sized Facility
- **Citgo Petroleum** (Chesapeake): Outstanding Achievement for Pollution Prevention - Small Facility
- **Infineon Technologies** (Sandston) and **AutoRecyclers** (Winchester): Outstanding Achievement for Toxics Reduction
- **ERG** (Arlington) and **Esquire Environmental Services, Inc.** (McLean): Partners of the Year
- **Pam Boatwright, Elizabeth River Project** (Norfolk) and **Jimmy Parrish, Defense Logistics Center Richmond** (Richmond): Mentors of the Year

Outreach to Northern Virginia Auto Body/ Collision Repair Shops

In 2005, DEQ's Small Business Assistance Program (SBAP) and the Department's Northern Virginia Regional Office developed an auto body/collision repair shop self-certification program. The program is targeted at shops subject to a new regulation requiring registration and volatile organic compounds (VOC) control requirements. In cooperation with the Washington Metropolitan Auto Body Association, DEQ delivered a series of six workshops across the region in late October and early November. EPA's Design for the Environment (DfE) staff is a partner in the effort.

A workbook and self-certification materials, which includes compliance requirements as well as pollution prevention, energy efficiency and other best management practices across air, water and waste media, were provided to all known auto body/collision repair operations in the area. The workshops provided overviews of the environmental requirements and best practices across the three media. It is expected that the outreach will enhance both compliance with the regulations as well as the use of pollution prevention techniques.

Successful program participants will receive a window decal and certificate. In addition, expert non-regulatory advice will be available to them through a DfE contractor and SBAP staff. Further, SBAP has developed contacts with vocational and community college auto body/collision repair instructors and has a relationship with the Iowa Waste Reduction Center (Spray Technique Analysis and Research—STAR—program and LaserTouch aiming technology). With these relationships, SBAP hopes to facilitate best management practices and pollution prevention training opportunities in the future for auto body/collision repair shops in the Northern Virginia ozone non-attainment area.



Virginia Naturally's "Ecological Footprints" Initiative

In 2005, a new environmental education initiative called "Ecological Footprints Should Make Good Impressions" was launched by DEQ's Office of Environmental Education as part of its overall Virginia Naturally outreach program. A number of tips and resources to "Reduce Your Ecological Footprint" are identified:

- Assess your ecological footprint (Visit www.vanaturally.com/footprint.html to measure yours.)
- Buy locally grown & manufactured goods (Visit the Virginia Department of Agriculture & Consumer Services website for a listing of Virginia producers: www.vdacs.virginia.gov/consumer.html.)
- Be a smart driver & Clean Air Champion (Keep your car in tune to prevent air pollution. Check out DEQ's daily air quality index for ozone: www.deq.virginia.gov/airquality.)
- Plant a SHADE tree (Trees cool our cities, filter the air, buffer noise & provide homes and food for wildlife. For information & assistance, visit the Virginia Department of Forestry: www.dof.virginia.gov.)

- Save energy to conserve non-renewable fuels and protect air & water. (See DEQ's pollution prevention site for more tips: www.deq.virginia.gov/p2/vise/efficiency.html.)
- Reduce, reuse & recycle (Visit the Virginia Department of Mines, Minerals & Energy for tips: www.dmme.virginia.gov/de/residentframe.html.)
- Be water-wise (Return clean water to your watershed to keep the land productive. For ideas, visit: www.dcr.virginia.gov/sw and www.deq.virginia.gov/watersupply/waterconservation.html.)
- Recycle historic buildings & used sites (Visit the Virginia Department of Historic Resources: www.dhr.virginia.gov. Learn about remediating idled, underutilized, or abandoned buildings or commercial properties: www.deq.virginia.gov/brownfieldweb/.)
- Enhance healthy wildlife habitat (Help make sure wildlife has room for its footprint. The Virginia Department of Games & Inland Fisheries can help: www.dgif.virginia.gov/wildlife/habitat_partners/index.html.)
- Be a concerned citizen & support environmental programs (Don't forget to let your friends know that you care about Virginia's environment. To find a program that suits you, visit: www.vanaturally.com.)

Office of Pollution Prevention Websites

General Information www.deq.virginia.gov/p2

Virginia Information Source for Energy www.deq.virginia.gov/p2/vise

Virginia Environmental Excellence Program www.deq.virginia.gov/veep

VA Hospitals for a Healthy Environment www.deq.virginia.gov/p2/vh2e

DEQ's Small Business Assistance Office www.deq.virginia.gov/osba/

Virginia Naturally www.vanaturally.com

Businesses for the Bay www.deq.virginia.gov/p2/b4b/

National Partnership for Environmental Priorities
www.deq.virginia.gov/p2/wastemin.html

Virginia Green Lodging Program www.deq.virginia.gov/p2/lodging

Mercury Switch Pilot Project & Fluorescent Lamp Recycling Project:
www.deq.virginia.gov/p2/mercury

Virginia's Sustainable Future Summit www.vsf3.org