



Office of Pollution Prevention 2006 Annual Report

December 2006

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Virginia Department of
Environmental Quality
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From the Director

Protecting Virginia’s environment through pollution prevention is a key element in preserving our Commonwealth’s natural resources for future generations. Many of the Department of Environmental Quality’s (DEQ) programs are a conduit for non-regulatory assistance to businesses, institutions, and communities. Led by the Office of Pollution Prevention, in 2006, DEQ expanded its pollution prevention

partnership programs, including the Virginia Environmental Excellence Program, a nationally-recognized program that provides recognition and incentives for facilities that voluntarily commit to “beyond compliance” environmental results.

Some of the Department’s significant pollution prevention accomplishments of the year were:

- Co-sponsoring of the First Annual Virginia Environmental Management System Conference in September in Roanoke, which attracted more than 140 participants
- Receiving a “Champion of Change” award from the national Hospitals for a Healthy Environment program for the second year in a row
- Co-hosting of a national conference for state and federal officials on performance-based programs in Williamsburg in November
- Establishing a user friendly on-line annual reporting system for Virginia Environmental Excellence Program participants
- Created a partnership with Virginia’s tourism industry, called *Virginia Green*, to promote tourism facilities that are committed to pollution prevention activities

I am confident that these and other initiatives of the Office of Pollution Prevention will bring about 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.

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VEEP facilities reported cost savings of more than \$2.5 million.

Virginia Environmental Excellence Program

The Virginia Environmental Excellence Program (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 accepted into the program must demonstrate their commitment to environmental performance through the development of an environmental management system (EMS), implementation of pollution prevention programs and compliance with environmental regulations. There are 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.
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At the end of 2006, there were almost four hundred facilities in the program, with three quarters (250) at the E2 level, and fewer at the E3 (79) and E4 (16) 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.

A review of the VEEP annual performance reports for 2005 indicates that facilities reported more than \$2.5 million in cost savings as a result of voluntary environmental reductions. In addition, facilities reported the following environmental results:

- 53,000 pounds hazardous materials use eliminated
- 24,000 tons non-hazardous materials eliminated or recycled
- 7,450 pounds hazardous waste eliminated or recycled
- 1,205,296 kilowatt hours less purchased electricity
- 55,980 square foot reduction in impervious surfaces
- 38,300 mmBtu less fuel use for vehicles
- 21.7 million gallons of water recycled
- 46.3 million gallon reduction in water use
- 64,000 tons of waste material sold as a raw material

In November, DEQ and EPA cosponsored the "7th State Performance Track Conference" in Williamsburg, attracting more than 100 state and federal government participants from across the country.

DEQ provided annual permit fee discounts of more than \$72,000 for VEEP facilities in 2006.

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

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 - Decreased hazardous solid waste production by 33% over 3 years
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 - Reduced use of solvents by 65% over 3 years, decreased hazardous waste generation by 100% (455 pounds)
 - Decreased use of virgin water at a golf course by 6.5 million gallons through use of conservation
- Furniture Manufacturer:
 - Reduced air emissions by 108 tons
 - Reduced solid waste by 53 tons
 - Reduced hazardous waste by 8 tons

VEEP Incentives

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

Recognition Ceremonies. OPP coordinates recognition ceremonies at facilities all around the Commonwealth.

During the past year, fourteen such events were held, including a single event recognizing the majority of Virginia's Army (6), Army Reserve (13) and National Guard facilities (54). Most of the ceremonies involved DEQ regional office staff, Central Office staff, local elected officials and employees of the facility. At



right is a picture from the VEEP E4 ceremony at Defense Supply Center Richmond held in April.

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 few years by the General Assembly session has provided a discount in permit fees for VEEP facilities and 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 vary by permitting program and are dependent on the number of facilities eligible:

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- **Alternate Compliance Methods.** The VEEP statute authorizes DEQ's three regulatory 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.

Additional information on the status of VEEP incentives is available in the "2006 Virginia Environmental Excellence Report", which was submitted to the Governor and appropriate committees of the General Assembly on December 1. Copies are available at DEQ's VEEP website at www.deq.virginia.gov/veep.

Virginia State Agencies & VEEP

To assist state agencies comply with the new "Environmental and Historic Resources Stewardship" criteria from the Governor's Management Scorecard, DEQ joined with sister agencies within the Virginia Natural Resources Secretariat to develop guidance materials. The Scorecard is based on a rating system of "below expectations," "progress toward expectations" and "meets expectations." In addition to maintaining compliance with environmental and historic resources regulations and policies, agencies are encouraged to pursue VEEP E2 status in order to document that they are meeting many of the pollution prevention-oriented measures. Since the introduction of the new criteria in late 2005, OPP has seen an increase in the number of Virginia state agencies requesting information on VEEP; more than sixty state facilities have already applied for E2 status.

Virginia EMS Association

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Auditing and Sector Trends. Future plans include forming a support and education system to: promote and support EMS across the Commonwealth and across all sectors; provide a network of professionals to share information, ideas and strategies to help members advance or maintain their EMS programs; and provide a state-based liaison organization to communicate with DEQ and the EPA on EMS-based issues.

Regional EMS Initiatives in Virginia

VEEP facilities in many areas of the Commonwealth have found that there are significant rewards from networking with their peers or focusing their EMSs on regional environmental priorities. DEQ strongly encourages these efforts because they may lead to facilities voluntarily committing to focus their EMS on regional issues such as air quality, Chesapeake Bay water quality and land conservation rather than strictly on facility operational priorities. This type of “beyond the fence line” perspective for EMS implementation in Virginia has attracted national attention. Below are several examples.

The **Virginia Regional Environmental Management System (VREMS)** is a partnership that includes over 40 federal, state, and local public and private organizations that collaborate to address community and environmental issues. VREMS was originally sponsored by the Department of Defense and the White House Council on Environmental Quality in 2003 as a pilot program to develop an EMS-based regional approach to environmental and community challenges. The VREMS partnership’s success has led to continuing support by the Defense Supply Center Richmond (DSCR), a VEEP E4/Performance Track facility. The DSCR finds value in VREMS because it enhances the facility’s mission readiness, promotes sustainability and provides significant benefits to its local community. The partnership’s mission is to: collaborate to address local and regional environmental priorities; improve communication and trust between partners and the community; leverage environmental experiences, best practices, lessons learned, and materials; and, help each partner cost-effectively manage their environmental impacts. Recent projects have focused on retrofitting diesel school buses in the Cities of Richmond and Hopewell to reduce air emissions, bringing fueling stations for the alternative fuel E-85 to eastern and northern Virginia, promoting energy efficiency at participants’ locations and committing to reduce point and non-point sources of stormwater pollution.

The **Rivanna Environmental Management System Alliance (REMSA)** is a regional EMS partnership formed in the summer of 2005 in the Charlottesville-Albemarle County area by several VEEP facilities. REMSA partners include the City of Charlottesville, Albemarle County, University of Virginia, Rivanna Water and Sewer/Solid Waste Authority, and Albemarle County Public Schools. The original purpose was to network on issues related to EMS development and implementation; however, the group has evolved into a mutually beneficial partnership that works collaboratively to pursue environmental initiatives and realize environmental improvements on a regional level. REMSA partners have benefited from sharing information, ideas and best practices, pooling resources and experience and learning from each other’s successes and mistakes. The environmental initiatives that REMSA has worked on in its first year include electronics recycling, school chemicals removal, B20 biodiesel use and hybrid-electric vehicles.



The **Chesapeake Bay-Focused EMS** initiative is a project of the regional Chesapeake Bay Program. The Bay Program has recently developed a document called "*Introduction to a Chesapeake Bay-Focused Environmental Management System.*" The guide includes general information about EMS development as well as possible approaches to customize the elements of an EMS to focus on Chesapeake Bay restoration and sustainment goals.

Mercury Reduction

Auto Salvage Industry Mercury Reduction

In 2005, OPP partnered with the Virginia Automotive Recycling Association (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. OPP sponsored a pre-paid collection kit with instructions for removing the switches and precautions for safe handling and shipping. VARA promoted the pilot to its membership, and more than thirty facilities signed up for the program. VARA also coordinated the pilot with EPA's National Partnership for Environmental Priorities, pledging to remove 1,500 switches (the equivalent of nearly five pounds of mercury).

As a result of the success of this pilot, the 2006 Virginia General Assembly adopted legislation that requires removal of mercury convenience switches from end-of-life motor vehicles prior to their demolition. The statute authorizes DEQ, through the Virginia Waste Management Board, to adopt guidelines setting standards for removal and management of switches from end-of-life automobiles. DEQ has been working with VARA, the Department of Motor Vehicles, Virginia's scrap industry, steel manufacturers, and the automotive industry to develop guidelines to assist with implementing the program. End of Life Vehicle Solutions (ELVS), an organization created by automotive manufacturers, has distributed collection buckets for mercury switches throughout the state and has already received switches from automobiles prior to demolition.

Virginia Hospitals for a Healthy Environment

Virginia Hospitals for a Healthy Environment, or VH2E, is DEQ's voluntary pollution prevention initiative for 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; currently, approximately half of Virginia's hospitals participate in the program.

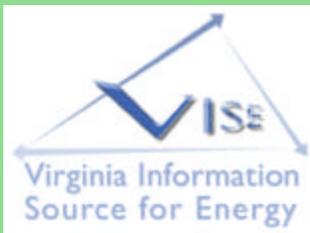
For the second consecutive year, DEQ was honored for its successful program when it received the "H2E Champion" award. Pictured with the award are OPP's Tom Griffin (left) and Sharon Baxter with Director Paylor.



In addition to DEQ's award, the agency



VH2E participants reported reductions of over 1,000 pounds of mercury and 500 tons of solid waste, and cost savings of more than \$200,000.



encouraged VH2E participants to work towards and apply for awards individually. The following facilities were recognized by the national program:

2006 Partners for Change Award: Bon Secours St. Mary's (Richmond), Inova Fairfax Hospital (Falls Church) and Martha Jefferson Hospital (Charlottesville)

2006 Making Medicine Mercury Free Award: Inova Fair Oaks Hospital (Fairfax) and Martha Jefferson Hospital (Charlottesville)

2006 Partner Recognition: Bon Secours Richmond Community Hospital, Carilion Medical Center (Roanoke), Reston Hospital Center and Virginia Baptist Hospital/Centra (Lynchburg)

2006 Champions for Change Award: Virginia Health Care Waste Management Cooperative (Glen Allen)

Other VH2E highlights from 2006:

- DEQ contracted with a consulting firm to provide technical assistance to participants. Ten members have been assisted to date.
- The VH2E Roundtable Series was initiated to provide quarterly offerings on various H2E-related topics.
- Participants reported reductions of over 1,000 pounds of mercury and 500 tons of solid waste, and cost savings of more than \$200,000.
- DEQ's hazardous waste program focused its Compliance Assistance Visitation (CAV) program on hospitals, performing more than fifteen visits. The management of pharmaceutical wastes was identified as a significant issue identified through the visits, and a VH2E workgroup to provide information-sharing and guidance for ensuring compliance with pharmaceutical waste requirements is under development.

Energy Efficiency & Renewable Energy

Virginia and other states continue to face air quality challenges such as ozone non-attainment, regional haze, fine particulates and toxic air pollutants. Air deposition contributes to acid precipitation as well as nutrient and toxic impacts in the Chesapeake Bay. Increasing energy efficiency and implementing clean energy technologies are two ways to mitigate negative impacts.

In many cases, clean, renewable energy approaches provide an environmentally *and* economically preferable alternative to conventional end-of-pipe pollution control, representing a classic pollution prevention approach. One significant barrier to implementation of these approaches can be a lack of access to current and comprehensive information. OPP actively participates in related outreach and education; 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. VISE is a repository for information on alternative energy options in Virginia, energy efficiency tips and financial incentives.

Partnerships. OPP collaborates with various organizations to promote energy education and the value of energy efficiency and renewable energy. In 2006, the Department participated in environmental and energy conferences and events throughout the Commonwealth, including the Association of Energy Conservation Professionals Annual Expo (OPP's Keith Boisvert is pictured at right with the VISE exhibit at the Expo), the Virginia Military Institute's Energy Virginia Conference and the Virginia Sustainable Business Network's workshop on the Energy Policy Act of 2005. DEQ also joined the American Lung Association and a number of other statewide partners to host Virginia's 5th 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 in an effort to reduce outdoor air pollution. The partnership is seeking to expand the concept through its new initiative called Commute Smart Virginia, which will have a year-round focus. OPP participates in several other organizations working on energy issues, such as the Virginia Wind Energy Collaborative, Hampton Roads Clean Cities and the Virginia Hydrogen Economy Roundtable.



Outreach to the Hospitality Industry

In 2006 DEQ sponsored a formal partnership with the Virginia Tourism Corporation and the Virginia Hospitality & Travel Association (VHTA) to develop an initiative to promote "nature-based tourism" in the Commonwealth. For the past three years, the Department has been assisting the hospitality industry with minimizing its impact on the environment. DEQ coordinates the activities of the *Virginia Green Lodging* program, a pollution prevention-based, voluntary program that recognizes hotels and other hospitality facilities. The new partnership provides the *Virginia Green Lodging* (formerly known as *EnvironmentaLodging*) the full endorsement of the Virginia tourism industry, as well as program support and marketing expertise.

In September, the new initiative, which is entitled *Virginia Green*, was formally launched at the quarterly meeting of the VHTA. As a result of the partnership, the *Virginia Green* logo (at right) will be used to indicate Green Lodging and other nature-based tourism businesses and facilities on the state's tourism websites.



Outreach to Reduce Priority Toxic Chemicals

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 recover or recycle the chemicals where they cannot easily be eliminated or reduced at the source. Success stories from Virginia NPEP facilities for 2006 include:

- **Sentara-Williamsburg Community Hospital:** The hospital, a 110-

bed facility offering a full range of medical services, eliminated 32 pounds of mercury by replacing over 160 blood-pressure cuffs with electronic devices.

- **Southern Graphic Systems:** Southern Graphic Systems in Richmond supplies digital graphic images and print media to the consumer packaging industry and manufactures plates and cylinders for the printing industry. The facility eliminated 4,800 pounds of lead through material substitution and no longer uses lead in their manufacturing process.
- In 2006, the **Town of Blacksburg** joined NPEP and committed to eliminate lead in their fleet's tires. In addition, the Town received a federal grant to expand their efforts into a "Sustainable Blacksburg Initiative."



Virginia B4Bay participants reported approximately 115 million pounds of waste reduction and recycling and over \$3.8 million in cost savings due to pollution prevention efforts in 2006.

Businesses for the Bay

Businesses for the Bay (B4B) is a voluntary pollution prevention program targeting facilities in the Chesapeake Bay watershed. It is run collaboratively by the Chesapeake Bay Program, the District of Columbia, and the states of Maryland, Pennsylvania and Virginia. 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. There are 735 participants and 125 mentors in the program; forty percent of both the facilities and the mentors are within Virginia. In 2006, 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. 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 13th, the Commonwealth's participants were honored with a total of eleven B4B Excellence Awards, more than half of all the awards presented. The facilities receiving awards were:

- **Virginia Port Authority**, Portsmouth: Outstanding Achievement for a Government Facility - State Government
- **National Oceanic and Atmospheric Administration Marine Operations Center**, Norfolk: Outstanding Achievement for a Government Facility - Federal Government
- **Southeastern Public Service Authority:** Outstanding Achievement for a Government Facility - Local Government
- **Fairfax County Government Wastewater Management Program:** Outstanding Achievement for Nutrient Reduction, Local Government
- **Degussa Goldschmidt Chemical Corp**, Hopewell and **Greif Riverville**, Amherst: Outstanding Achievement for Nutrient Reduction
- **Cargill Meat Solutions Corporation**, Dayton and **Earl Industries**, Portsmouth: Outstanding Achievement for Pollution Prevention - Large Facility

- **CR Hudgins Plating**, Lynchburg: Outstanding Achievement for Pollution Prevention - Small Facility
- **Gordon Worrell and Ruth Debrito, Smithfield Transportation Company**, Smithfield: Mentors of the Year

Office of Pollution Prevention Websites

General Information

www.deq.virginia.gov/p2

Virginia Environmental Excellence Program

www.deq.virginia.gov/veep

Virginia Information Source for Energy

www.deq.virginia.gov/p2/vise

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





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Auditing and Sector Trends. Future plans include forming a support and education system to: promote and support EMS across the Commonwealth and across all sectors; provide a network of professionals to share information, ideas and strategies to help members advance or maintain their EMS programs; and provide a state-based liaison organization to communicate with DEQ and the EPA on EMS-based issues.

Regional EMS Initiatives in Virginia

VEEP facilities in many areas of the Commonwealth have found that there are significant rewards from networking with their peers or focusing their EMSs on regional environmental priorities. DEQ strongly encourages these efforts because they may lead to facilities voluntarily committing to focus their EMS on regional issues such as air quality, Chesapeake Bay water quality and land conservation rather than strictly on facility operational priorities. This type of “beyond the fence line” perspective for EMS implementation in Virginia has attracted national attention. Below are several examples.

The **Virginia Regional Environmental Management System (VREMS)** is a partnership that includes over 40 federal, state, and local public and private organizations that collaborate to address community and environmental issues. VREMS was originally sponsored by the Department of Defense and the White House Council on Environmental Quality in 2003 as a pilot program to develop an EMS-based regional approach to environmental and community challenges. The VREMS partnership’s success has led to continuing support by the Defense Supply Center Richmond (DSCR), a VEEP E4/Performance Track facility. The DSCR finds value in VREMS because it enhances the facility’s mission readiness, promotes sustainability and provides significant benefits to its local community. The partnership’s mission is to: collaborate to address local and regional environmental priorities; improve communication and trust between partners and the community; leverage environmental experiences, best practices, lessons learned, and materials; and, help each partner cost-effectively manage their environmental impacts. Recent projects have focused on retrofitting diesel school buses in the Cities of Richmond and Hopewell to reduce air emissions, bringing fueling stations for the alternative fuel E-85 to eastern and northern Virginia, promoting energy efficiency at participants’ locations and committing to reduce point and non-point sources of stormwater pollution.

The **Rivanna Environmental Management System Alliance (REMSA)** is a regional EMS partnership formed in the summer of 2005 in the Charlottesville-Albemarle County area by several VEEP facilities. REMSA partners include the City of Charlottesville, Albemarle County, University of Virginia, Rivanna Water and Sewer/Solid Waste Authority, and Albemarle County Public Schools. The original purpose was to network on issues related to EMS development and implementation; however, the group has evolved into a mutually beneficial partnership that works collaboratively to pursue environmental initiatives and realize environmental improvements on a regional level. REMSA partners have benefited from sharing information, ideas and best practices, pooling resources and experience and learning from each other’s successes and mistakes. The environmental initiatives that REMSA has worked on in its first year include electronics recycling, school chemicals removal, B20 biodiesel use and hybrid-electric vehicles.



The **Chesapeake Bay-Focused EMS** initiative is a project of the regional Chesapeake Bay Program. The Bay Program has recently developed a document called "*Introduction to a Chesapeake Bay-Focused Environmental Management System.*" The guide includes general information about EMS development as well as possible approaches to customize the elements of an EMS to focus on Chesapeake Bay restoration and sustainment goals.

Mercury Reduction

Auto Salvage Industry Mercury Reduction

In 2005, OPP partnered with the Virginia Automotive Recycling Association (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. OPP sponsored a pre-paid collection kit with instructions for removing the switches and precautions for safe handling and shipping. VARA promoted the pilot to its membership, and more than thirty facilities signed up for the program. VARA also coordinated the pilot with EPA's National Partnership for Environmental Priorities, pledging to remove 1,500 switches (the equivalent of nearly five pounds of mercury).

As a result of the success of this pilot, the 2006 Virginia General Assembly adopted legislation that requires removal of mercury convenience switches from end-of-life motor vehicles prior to their demolition. The statute authorizes DEQ, through the Virginia Waste Management Board, to adopt guidelines setting standards for removal and management of switches from end-of-life automobiles. DEQ has been working with VARA, the Department of Motor Vehicles, Virginia's scrap industry, steel manufacturers, and the automotive industry to develop guidelines to assist with implementing the program. End of Life Vehicle Solutions (ELVS), an organization created by automotive manufacturers, has distributed collection buckets for mercury switches throughout the state and has already received switches from automobiles prior to demolition.

Virginia Hospitals for a Healthy Environment

Virginia Hospitals for a Healthy Environment, or VH2E, is DEQ's voluntary pollution prevention initiative for 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; currently, approximately half of Virginia's hospitals participate in the program.

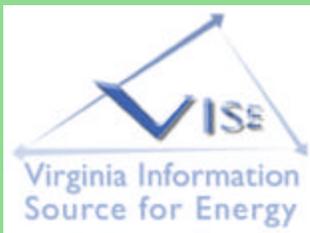
For the second consecutive year, DEQ was honored for its successful program when it received the "H2E Champion" award. Pictured with the award are OPP's Tom Griffin (left) and Sharon Baxter with Director Paylor.



In addition to DEQ's award, the agency



VH2E participants reported reductions of over 1,000 pounds of mercury and 500 tons of solid waste, and cost savings of more than \$200,000.



encouraged VH2E participants to work towards and apply for awards individually. The following facilities were recognized by the national program:

2006 Partners for Change Award: Bon Secours St. Mary's (Richmond), Inova Fairfax Hospital (Falls Church) and Martha Jefferson Hospital (Charlottesville)

2006 Making Medicine Mercury Free Award: Inova Fair Oaks Hospital (Fairfax) and Martha Jefferson Hospital (Charlottesville)

2006 Partner Recognition: Bon Secours Richmond Community Hospital, Carilion Medical Center (Roanoke), Reston Hospital Center and Virginia Baptist Hospital/Centra (Lynchburg)

2006 Champions for Change Award: Virginia Health Care Waste Management Cooperative (Glen Allen)

Other VH2E highlights from 2006:

- DEQ contracted with a consulting firm to provide technical assistance to participants. Ten members have been assisted to date.
- The VH2E Roundtable Series was initiated to provide quarterly offerings on various H2E-related topics.
- Participants reported reductions of over 1,000 pounds of mercury and 500 tons of solid waste, and cost savings of more than \$200,000.
- DEQ's hazardous waste program focused its Compliance Assistance Visitation (CAV) program on hospitals, performing more than fifteen visits. The management of pharmaceutical wastes was identified as a significant issue identified through the visits, and a VH2E workgroup to provide information-sharing and guidance for ensuring compliance with pharmaceutical waste requirements is under development.

Energy Efficiency & Renewable Energy

Virginia and other states continue to face air quality challenges such as ozone non-attainment, regional haze, fine particulates and toxic air pollutants. Air deposition contributes to acid precipitation as well as nutrient and toxic impacts in the Chesapeake Bay. Increasing energy efficiency and implementing clean energy technologies are two ways to mitigate negative impacts.

In many cases, clean, renewable energy approaches provide an environmentally *and* economically preferable alternative to conventional end-of-pipe pollution control, representing a classic pollution prevention approach. One significant barrier to implementation of these approaches can be a lack of access to current and comprehensive information. OPP actively participates in related outreach and education; 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. VISE is a repository for information on alternative energy options in Virginia, energy efficiency tips and financial incentives.

Partnerships. OPP collaborates with various organizations to promote energy education and the value of energy efficiency and renewable energy. In 2006, the Department participated in environmental and energy conferences and events throughout the Commonwealth, including the Association of Energy Conservation Professionals Annual Expo (OPP's Keith Boisvert is pictured at right with the VISE exhibit at the Expo), the Virginia Military Institute's Energy Virginia Conference and the Virginia Sustainable Business Network's workshop on the Energy Policy Act of 2005. DEQ also joined the American Lung Association and a number of other statewide partners to host Virginia's 5th 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 in an effort to reduce outdoor air pollution. The partnership is seeking to expand the concept through its new initiative called Commute Smart Virginia, which will have a year-round focus. OPP participates in several other organizations working on energy issues, such as the Virginia Wind Energy Collaborative, Hampton Roads Clean Cities and the Virginia Hydrogen Economy Roundtable.



Outreach to the Hospitality Industry

In 2006 DEQ sponsored a formal partnership with the Virginia Tourism Corporation and the Virginia Hospitality & Travel Association (VHTA) to develop an initiative to promote "nature-based tourism" in the Commonwealth. For the past three years, the Department has been assisting the hospitality industry with minimizing its impact on the environment. DEQ coordinates the activities of the *Virginia Green Lodging* program, a pollution prevention-based, voluntary program that recognizes hotels and other hospitality facilities. The new partnership provides the *Virginia Green Lodging* (formerly known as *EnvironmentaLodging*) the full endorsement of the Virginia tourism industry, as well as program support and marketing expertise.

In September, the new initiative, which is entitled *Virginia Green*, was formally launched at the quarterly meeting of the VHTA. As a result of the partnership, the *Virginia Green* logo (at right) will be used to indicate Green Lodging and other nature-based tourism businesses and facilities on the state's tourism websites.



Outreach to Reduce Priority Toxic Chemicals

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 recover or recycle the chemicals where they cannot easily be eliminated or reduced at the source. Success stories from Virginia NPEP facilities for 2006 include:

- **Sentara-Williamsburg Community Hospital:** The hospital, a 110-

bed facility offering a full range of medical services, eliminated 32 pounds of mercury by replacing over 160 blood-pressure cuffs with electronic devices.

- **Southern Graphic Systems:** Southern Graphic Systems in Richmond supplies digital graphic images and print media to the consumer packaging industry and manufactures plates and cylinders for the printing industry. The facility eliminated 4,800 pounds of lead through material substitution and no longer uses lead in their manufacturing process.
- In 2006, the **Town of Blacksburg** joined NPEP and committed to eliminate lead in their fleet's tires. In addition, the Town received a federal grant to expand their efforts into a "Sustainable Blacksburg Initiative."



Virginia B4Bay participants reported approximately 115 million pounds of waste reduction and recycling and over \$3.8 million in cost savings due to pollution prevention efforts in 2006.

Businesses for the Bay

Businesses for the Bay (B4B) is a voluntary pollution prevention program targeting facilities in the Chesapeake Bay watershed. It is run collaboratively by the Chesapeake Bay Program, the District of Columbia, and the states of Maryland, Pennsylvania and Virginia. 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. There are 735 participants and 125 mentors in the program; forty percent of both the facilities and the mentors are within Virginia. In 2006, 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. 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 13th, the Commonwealth's participants were honored with a total of eleven B4B Excellence Awards, more than half of all the awards presented. The facilities receiving awards were:

- **Virginia Port Authority**, Portsmouth: Outstanding Achievement for a Government Facility - State Government
- **National Oceanic and Atmospheric Administration Marine Operations Center**, Norfolk: Outstanding Achievement for a Government Facility - Federal Government
- **Southeastern Public Service Authority:** Outstanding Achievement for a Government Facility - Local Government
- **Fairfax County Government Wastewater Management Program:** Outstanding Achievement for Nutrient Reduction, Local Government
- **Degussa Goldschmidt Chemical Corp**, Hopewell and **Greif Riverville**, Amherst: Outstanding Achievement for Nutrient Reduction
- **Cargill Meat Solutions Corporation**, Dayton and **Earl Industries**, Portsmouth: Outstanding Achievement for Pollution Prevention - Large Facility

- **CR Hudgins Plating**, Lynchburg: Outstanding Achievement for Pollution Prevention - Small Facility
- **Gordon Worrell and Ruth Debrito, Smithfield Transportation Company**, Smithfield: Mentors of the Year

Office of Pollution Prevention Websites

General Information

www.deq.virginia.gov/p2

Virginia Environmental Excellence Program

www.deq.virginia.gov/veep

Virginia Information Source for Energy

www.deq.virginia.gov/p2/vise

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

