

# MDE Environment

Maryland Department of the Environment

February 1999

## What's Inside...

*Clinton Environmental Initiatives.....3*

*Eastern Shore Land Conservancy.....3*

*Tawes Award Nominations Open.....4*

*Restoring Wetlands on the Eastern Shore.....4*

*UST Deadline Stats.....5*

*Governor's Green School Program.....6*

*Tier Two Reports Due.....6*

*For the Record.....7*

*Enforcement and Compliance Notes.....11*

*Public Meetings and Hearings Calendar.....BP*

Conserve Paper  
- Share with  
others in your  
office!



Visit MDE's home page at  
<http://www.mde.state.md.us>

## FY98 Enforcement and Compliance Report Released

by Bernard Penner

The Maryland Department of the Environment's (MDE's) second annual Enforcement and Compliance Report, released in January, presents a base-line picture of the department's enforcement and compliance activities in an easily understood format. Using jargon-free text, graphs, and charts, the report tracks 28 different programs covering the three major media, air and radiation, waste, and water. Considered together with the first report for FY 97, the FY 1998 reports compares the statistics from the two years using graphs which help the reader understand the progress and scope of MDE's enforcement activities in the areas of industry wide compliance rates, numbers of inspections conducted, and enforcement actions taken.

In recent years, the effectiveness of enforcement programs has been increasingly difficult to quantify in terms of environmental improvements because the dramatic advances of a decade ago have already been accomplished. Regulatory agencies such as the Environmental Protection Agency and MDE have become the victims of their own success. As more industries have come into compliance and implemented pollution reduction technologies, the rate of environmental improvement has leveled off. Even the most effective regulatory program will only result in gradual environmental progress, and many programs' best efforts ultimately result in maintaining the level of environmental quality which has already been achieved. The expectation that enforcement will continually result in significant environmental improvement



MDE inspector Lisa Trujillo visits a local construction site.

cannot be sustained.

The problem of evaluating enforcement programs has led to the development of both state and federal performance measures. Although the traditional method of counting enforcement actions continues to be the primary indicator of MDE's enforcement activity, a three tiered system of measurement has evolved. The first tier, identified as outputs simply involves counting the department's actions. This count includes inspections conducted, violations discovered, and enforcement actions taken. The second tier of measurement is called outcomes. These outcome measures track the responses of the regulated community to MDE's enforcement activity. This second tier comes from the realization that enforcement does not directly impact the environment but influences regulated industries to obey the law. It is industry's reduction of polluting activity which directly effects the environment and gives rise to the third tier of performance measurement known as environmental indicators. Environmental indicators are quantifiable measurements taken

(continued on page 2)

## Legislative Update

by Diane Shaw

On January 13, the Maryland General Assembly which includes 30 new state delegates and 7 freshman state senators convened for the 1999 Legislative Session. Several pieces of environmental legislation will be addressed by the General Assembly as the Session unfolds.

It is anticipated that restructuring of the electric utility industry will receive considerable attention this Session. During the 1998 interim, several legislative committees conducted meetings on restructuring issues and the Maryland Public Service Commission held roundtable meetings. Restructuring issues involve customer education; universal service (programs for low income assistance and protection);

(continued on page 4)

*MDE Environment is a monthly newspaper published by the Maryland Department of the Environment. Information contained within this publication is not intended to fulfill any legal or regulatory community information requirement.*

- Parris N. Glendening**, Governor  
**Kathleen Kennedy Townsend**, Lieutenant Governor  
**Jane T. Nishida**, Secretary of Environment  
**Arthur Ray**, Deputy Secretary  
**Bob Hoyt**, Assistant Secretary  
**Susan E. Woods**, Director of Communications  
**Christine F. Plummer**, Managing Editor
- Editorial Board Members**  
**Sue Battle**, Director  
 Environmental Permits Service Center  
**Robert Maddox**, Public Participation Coordinator, Air & Radiation Management  
**Jim George**, Section Head, Technical & Regulatory Services Administration  
**Doug John**, Environmental Boards Administrator, Water Management Administration  
**Joe Herb**, Graphic Artist, Technical & Regulatory Services Administration  
**Don Mauldin**, Administrative Specialist, Waste Management Administration  
**Barbara Rodgers**, Division Chief, Administrative & Employee Services  
**Pat Coll**, Management Associate, Administrative & Employee Services

**Contributing Writers:**

- Bonnie Berardelli, WAS Shirley Garner, OC  
 Carolyn Kuciara, TARSA Fran Stierstorfer, OC  
 Pat Coll, AESA Suzanne Bond, OC  
 Bernard Penner, OS Diane Shaw, OS  
 Tony Abar, WMA Herman Twining, WMA  
 Herb Meade, WAS Jim George, TARSA  
 Kathy Bishop, ECU Janet Hamilton, WMA  
 Larry Priebe, AESA Georgia Allen, AESA  
 Robert Hagans, AESA Pat Williams, TARSA  
 Walter Van Antwerp, ARMA  
 Laura Armstrong, EPSC

**For the Record Section**

**Meetings and Hearings Calendar**

**Joane Mueller**, Production Coord.

Contributors:

- Dorothy Guy, ARMA Ty Stinson, WMA  
 Gail Castleman, WAS Ta-shon Yu, WMA  
 Lorrie Del Pizzo, EPSC Bob Harris, WMA  
 Sheila Franklin, WMA Rick Trickett, WMA  
 Edwina Goines, ARMA Jeanette Wolfe, ARMA  
 Melody Thrower, WMA  
 Lois McNamara, WMA

**Enforcement & Compliance Notes**

**Bernard Penner**, Office of the Secretary

Contributors:

- Angelo Bianca, ARMA  
 Frank Courtright, ARMA  
 Frank Whitehead, ARMA  
 Horacio Tablada, WAS  
 Jack Bowen, WMA

Send comments or inquiries to:

MDE Environment  
 Christine Plummer, Managing Editor  
 2500 Broening Highway  
 Baltimore MD 21224  
 cplummer@mde.state.md.us

continued from front page...

## Enforcement and Compliance Report

from the various media to determine if there has been any change in the quality of the environment. With this three tiered approach MDE is developing a consistent system for measuring the success of its enforcement and compliance efforts.

The FY 98 Enforcement and Compliance Report primarily counts outputs. The goal is to create a management tool by which the agency and the public can gauge which of MDE's efforts are having the most impact. To this end every program tracks:

- The total number of facilities which the program regulates. This large number shows the actual size of the total workload.
- The number of inspections which the program conducted, as well as the number of facilities which were actually inspected. These numbers reveal how much of the regulated universe receives regulatory attention. From one year to the next the public will be able to compare whether the regulatory activity has increased or decreased and how much regulatory coverage MDE's resources accomplished.
- The number of significant violations found at inspected facilities.
- The percentage of the inspected facilities which had significant

## MDE Performance Measures Summary

	1998 Totals
<b>PERMITTED SITES/FACILITIES</b>	
Number of Permits/Licenses issued	8,972
Number of Permits/Licenses in effect at Fiscal Year End	54,668
<b>OTHER REGULATED SITES/FACILITIES (other sites)</b>	
	89,863
<b>INSPECTIONS</b>	
Number of Sites Inspected	31,026
Number of Inspections, Audits, Spot Checks	81,372
<b>ENFORCEMENT ACTIONS</b>	
Number of Compliance Assistance Rendered	15,837
Number of Enforcement Actions Taken	1,134
<b>PENALTIES</b>	
Amount of Administrative or Civil Penalties obtained	\$1,145,731*

\*Amount of revenue obtained ("collected") in FY 98 as a result of enforcement actions.

violations.

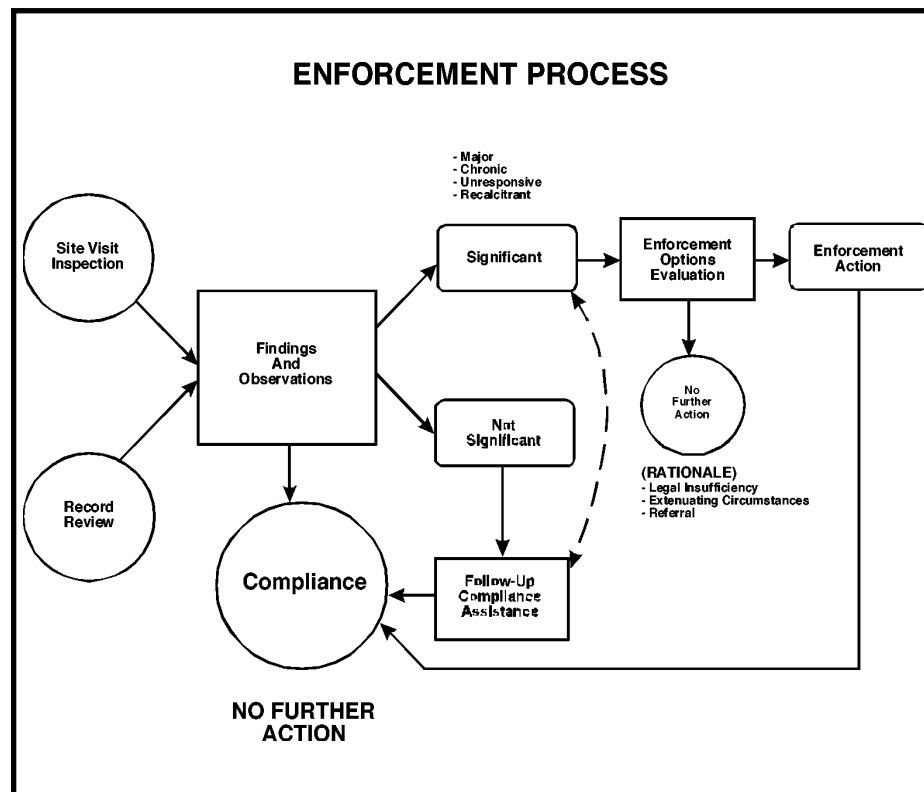
- Finally, the number of potential problems prevented is statistically captured in the compliance assistance category.

The concept of compliance assistance is the indicator by which MDE moves from simply measuring outputs to measuring outcomes. In the process of regulating facilities, our inspectors identify situations which have not yet become significant problems but will result in violations if left uncorrected. Previously, inspectors advised facilities of these

problems and the facilities often made the appropriate corrections. Before now there was no way to track that preventative regulatory activity. Only situations that resulted in violations could be counted. With this new category of compliance assistance we are able to count what previously was statistically invisible. To get a compliance assistance number the inspector must document the potentially significant violation, notify the facility of the problem, and then follow up to determine whether the problem has been taken care of. If the problem is resolved the program can count the episode as compliance assistance. If the problem is not resolved and a violation results, then the program takes an enforcement action.

Applying the old adage that an ounce of prevention is worth a pound of cure, MDE recognizes that the department's role involves more than taking enforcement actions. Compliance includes affirmatively working to reduce and prevent pollution as well as avoiding violations. MDE views the role of compliance as preventing environmental harms and the role of enforcement as correcting past misdeeds. Protecting the environment includes both activities.

The complete report is available on-line at [www.mde.state.md.us](http://www.mde.state.md.us). For a minimal fee a copy of the report may be obtained by calling MDE's Nadine Hailey at (410) 631-3086.





# Clinton Environmental Initiatives Announced

## *Livability Programs Top Agenda*

Governor Parris N. Glendening joined U.S. Environmental Protection Agency Administrator Carol M. Browner at the American Can Company in Baltimore in late January where Administrator Browner announced the details of innovative initiatives proposed by President Clinton to help revitalize communities across the country and help build on Maryland's Smart Growth success.

Administrator Browner applauded Governor Glendening's leadership in targeting neighborhood revitalization and Smart Growth funds to help transform one of Baltimore's industrial sites into a thriving retail office complex. The American Can Company property is a model for redeveloping abandoned industrial facilities and revitalizing communities.

To help communities across America grow in ways that ensure a high quality of life and strong, sustainable economic growth, President Clinton and Vice President Gore are proposing a comprehensive Livability Agenda providing new tools and resources for state and local governments. By delivering these resources to the local level, where issues of growth are most appropriately addressed, this initiative will help empower citizens to build more "livable communities" for the 21st century.

The Clinton-Gore Livability Agenda aims to help citizens and communities:

- Preserve Green spaces that promote clean air and clean water, sustain

wildlife, and provide families with places to walk, play and relax.

- Ease traffic congestion by improving road planning, strengthening existing transportation systems, and expanding use of alternative transportation to give commuters more time with their families, friends and neighbors.
- Restore a sense of community by fostering citizen and private sector involvement in local planning, including the placement of schools and other public facilities.
- Promote collaboration among neighboring communities—cities, suburbs or rural areas—to develop regional growth strategies and address common issues like crime.
- Enhance economic competitiveness by nurturing a high quality of life that attracts well-trained workers and cutting-edge industries.

The President's FY 2000 budget request Congress will propose significant new workers and cutting-edge industries.

**Better America Bonds**—The Administration is proposing a new financing tool generating \$9.5 billion in bond authority for investments by state, local and tribal governments. Proposed tax credits totaling more than \$700 million over five years will support Better America Bonds, which can be used to preserve green space, create or restore urban parks, protect water quality, and clean up



**EPA Administrator Carol Browner, Governor Glendening and American Can developer Bill Streuver at the recent Clean Water Action Plan announcement in Baltimore**

brownfields (abandoned industrial sites).

### **Community Transportation**

**Choices**—To help ease traffic congestion, the proposed Department of Transportation budget for FY 2000 will include a record \$6.1 billion for public transit and \$2.2 billion to aggressively implement innovative community-based programs in the Transportation Equity Act for the 21st Century. These programs help communities create regional transportation strategies, improve existing roads and transit, and encourage broader use of alternative transportation.

**Regional Connections Initiative**—To promote regional "smart growth" strategies, the Department of Housing

and Urban Development will provide \$50 million as matching funds for local partnerships to design and pursue smarter growth strategies across jurisdictional lines.

**Other Livability Initiative**—The President's proposed FY 2000 budget also will include \$100 million for programs to encourage citizen participation in the design of schools as centers of their communities, provide communities with new information tools so they can grow according to their values, and improve public safety by sharing crime data among communities.

Clinton Administration initiatives reflect Governor Glendening's Smart Growth efforts and his emphasis on preserving "green infrastructure."

## Land Conservancy Success

The Eastern Shore Land Conservancy preserved more land in 1998 than any other year since it began in 1990. Easements were completed on 3,013 acres on 19 mid-Eastern Shore properties.

Rob Etgen, executive director of the Conservancy attributes this surge in preservation to the fact that the Eastern Shore is starting to feel growth pressures. "Residents are living with it and seeing first hand the impact that sprawl has on their quality of life and the environment." As a result, the Conservancy increased its efforts to target critical properties to be saved.

The Conservancy works with landowners in all five counties of the middle Eastern Shore to help preserve farmland and natural areas. Seventeen landowners made the decision to donate a conservation easement to the

Eastern Shore Land Conservancy in conjunction with the Maryland Environmental Trust. The Conservancy also was named as the sole holder of conservation easements donated by two other landowners.

With each conservation easement, the landowner enters into a voluntary deed agreement with the Conservancy that limits future development of a property to an agreed upon level. After a conservation easement is placed on the property, the landowner continues to own and use the land while realizing several tax advantages.

According to Etgen, "The tremendous interest in easements on the Eastern Shore is a testament to the beauty of our area, the deep connections between families and the land, and our collective concern for the future of this special region."

## Tawes Award Accepting Nominations

The Maryland Department of the Environment and the Maryland Petroleum Council invites environmental volunteers from across the state to submit nominations for the *1999 Tawes Award for a Clean Environment*. The awards program, now in its 22<sup>nd</sup> year, is open to any non-profit, civic, community or business entity that has demonstrated outstanding efforts to enhance Maryland's environment.

Awards will be given to both an adult and a youth recipient who have participated in any community cleanup, school beautification or ecology project, recycling, oil

pollution prevention or cleanup, waste reduction or any other innovative environmental enhancement project. The project could be a one time effort or an on-going program.

Winners and runner-ups and their guests will be invited to an awards luncheon in Annapolis. In addition to the award, winners will receive a monetary donation to the favorite environmental non-profit. For more information on the awards program or to receive a simple application form, contact Chris Plummer of MDE at (410) 631-3012 or MPC's Don Schroeder at (410) 269-1850. Deadline for nominations is April 15.



# Cooperative Project Restores Abandoned Mine and Riparian Floodplain Near Federalsburg

by Herman C. Twining

Wetlands along a tidal reach of Marshy Hope Creek near Federalsburg on Maryland's Eastern Shore are experiencing a re-birth thanks to the cooperative efforts of the Maryland departments of the Environment and Natural Resources, the Town of Federalsburg, numerous private and federal agencies, landowners, and volunteers. This unique environmental project not only recreates wetlands but also eliminates safety hazards created by an adjacent abandoned sand and gravel mine, improves in-stream habitat and provides a greenway link between the 28-acre project area and Federalsburg.

During the 1960s, before the value of wetlands were fully understood, Marshy Hope Creek was dredged to straighten its meandering banks in hopes of relieving a history of flooding in Federalsburg. The dredged sand was placed in the floodplain and the wetland destroyed.

Governor Parris N. Glendening recently established a goal to create 60,000 acres of wetlands in Maryland to replace what has been lost since the 1940s. This restoration project will successfully create 10.5 acres of fresh tidal emergent and scrub-shrub wetlands and approximately 4.5 acres of scrub-shrub and forested nontidal wetlands. Upland forest and stream bank plantings will provide approximately 3,000 linear feet of forested riparian buffer.

A nearby abandoned sand and gravel mine, that filled with water and is now a public safety hazard, will be the disposal site for approximately 20,000



A boardwalk across new wetlands constructed near Federalsburg.

cubic yards of the 45,000 cubic yards of excavated sandy material from Marshy Hope Creek. The fill material will be placed along the shore of the pond to create a 50-foot-wide shallow water zone. Dense vegetation will be planted on the gentle slope to establish a wetland and deter swimmers.

Once this area has been connected to the tidal waters of Marshy Hope Creek, the vegetated slope will also function as a tidal marsh, and fish will have access to the pond. Spawning areas will be expanded for anadromous fish such as Blueback Herring, Striped Bass, American and Hickory Shad, Alewife, and semi-anadromous species such as White and Yellow Perch. A trail system with interpretive displays will be added to the Marshy Hope Creek project site to provide educational opportunities for



A dump truck delivers fill material excavated from the banks of Marshy Hope Creek to create the shallow water zone of the abandoned mine pond.

continued from page 1....

## Legislative Session

demand side management (programs for conservation and energy load control); supplier authorization (licensing of nonutility suppliers and marketers of energy); stranded cost (utility investments which are anticipated not to be recovered in a competitive market) and taxation. The environmental issues related to electric restructuring include ensuring a fair market access for clean energy power suppliers and promoting the efficient use of energy resources.

Other environmental bills to be introduced this Session will address the public notice and meeting requirements for permit renewals and transfers, water supply and withdrawal, pesticide notification, and environmental enforcement. As the 1999 legislative session continues, the Maryland Department of the Environment will offer updates to our stakeholders on environmental issues of concern.

## Spring Pollution Prevention Conference

The National Pollution Prevention Roundtable holds its Spring Conference at the Hyatt Regency in Washington, D.C. April 6-9. Members who register by **February 15** receive a discount on the registration fee. The conference focuses on the latest pollution prevention policy, regulatory, and technical assistance initiatives.

Topics include pollution prevention and local governments, small businesses, and agriculture, residential/household P2, technical papers, training methodologies, energy efficiency initiatives, chemical use, ISO 14000, international P2 projects, and sustainable development.

To obtain information on registration, and to learn about how your organization can sponsor an event, display information or host a site visit, contact Michele Russo at the Roundtable (202) 466-7272. You may also visit their website at [www.p2.org](http://www.p2.org).

area school children and visitors. Later this year the new trail system will be tied into a river walk park system that is located in the Town of Federalsburg just north of the project.

Several agencies provide technical support and advice to property owners interested in restoring wetlands to their property. Financial assistance also may be available depending on various factors such as historical or current land use. Interested landowners may call MDE's Tony Abar at (410) 631-8059 for more information.

### Wetlands Restoration Workshop for Businesses

March 17, 1999  
7:30 a.m. - noon

**Benefits to creating a wetland on your business campus include:**

- Tax Benefits
- Improved Community Relations
- Improved Employee Morale
- Ongoing Publicity Opportunities
- Environmental Benefits

**Information on technical, regulatory and available financial assistance will be presented. For more information contact the Maryland Department of the Environment at (410) 631-8059**

# Maryland's UST Program Ranks in Top Five Nationwide

by Herb Meade and Bonnie Berardelli

Maryland is fifth in the nation in compliance with a 1998 Environmental Protection Agency deadline to upgrade or remove underground storage tanks (USTs). As of the December 22 deadline, Maryland's underground storage tank population had been reduced to fewer than 18,000 tanks.

Over 22,000 underground storage tanks that store motor fuels, used oil or heating oil for resale have been properly closed and 15,300 additional USTs have been upgraded to meet the new requirements. Only Wyoming, Florida, Iowa, and Maine have surpassed Maryland's success. The

Maryland Department of the Environment (MDE) is working to achieve 100 percent compliance by July 1999.

Written in 1988 to address releases due to structural failure, corrosion, or spills and overfills, the EPA regulation required USTs to be protected from corrosion and have overflow/spill prevention installed. With tank inspection regulations already in place, additional Maryland regulations were adopted in 1991 to implement EPA's 1988 mandate to develop comprehensive programs and plans for prevention, control and abatement of water pollution caused by oil.

For the past several years, Maryland tank owners and contractors have

been busy dealing with a tremendous number of tank upgrades and replacements to meet the December 1998 deadline. Inspectors and other MDE personnel have been equally busy in monitoring, inspecting and providing technical guidance.

The average cost for a service station to remove and replace three to four underground tanks is \$100,000. To assist tank owners in meeting the new requirements, the UST Upgrade and Replacement Fund provides low-interest loans to tank owners. As of the loan closure deadline of December 31, ninety-seven loans were closed for a total amount of approximately \$5 million.

The Oil Contaminated Site Environmental Cleanup Fund was established in 1993 to encourage tank owners to meet the new tank requirements and assist with cleanup of old, leaking underground tanks. MDE has approved 113 applications which equal allocations of \$11.6 million. Many more cleanups have been completed but were paid for by the persons responsible for the contamination.

The number of tanks upgraded, replaced or closed; the number of loans granted; and the number of clean-ups made, demonstrates a total concerted effort and commitment by MDE and tank owners throughout Maryland to protect our valuable resources.

## Protecting Water Resources:

*Part two in a series to help you understand water regulations and programs*

by Jim George

The first article of this series focused on the roles and relationships of federal, state and local governments and introduced the two primary frameworks that shape how Maryland manages its water resources -the federal Clean Water Act and the Chesapeake Bay Agreement. With the Clinton Administration's newest initiative, the federal Clean Water Action Plan, this article explores the relationship between renewed commitment to old challenges and the acceptance of new ones.

### Clean Water Act and TMDLs

The Clean Water Act (CWA) is a 1972 federal law designed to ensure that the nation's waters are maintained in a "fishable and swimmable" condition that protects public health and living resources. Among other requirements, the act mandates that states establish water quality standards, regularly monitor water quality and regulate discharges to those waters to ensure that standards are achieved and maintained. Part of the legal mandate requires that states utilize the "best available" data and assessment methodologies to determine the Total Maximum Daily Load (TMDL) of a substance or stressor that can be accommodated by a waterway without exceeding any water quality standards. The Clean Water Act is national in scope, is generally implemented by each state by delegated authority, and is primarily directed at restoration of water quality.

### Chesapeake Bay Agreement

In developing the Chesapeake Bay Agreement and working to achieve their commitments under that agreement and the directives of the Chesapeake Bay Executive Council, Maryland and the other signatory jurisdictions have built upon efforts in both voluntary and legally mandated regulatory programs. The Chesapeake Bay Agreement is a regional initiative of Maryland, Virginia, Pennsylvania, the District of Columbia and the U.S. Environmental Protection Agency, initially signed in 1983. The original agreement was further strengthened by amendment in 1987 and in 1992. It focuses on the Chesapeake Bay Watershed, with the objective of achieving both water quality and living resources goals set by the Chesapeake Executive Council in the Bay Agreement and subsequent directives. The Chesapeake Bay Agreement is regional in scope, is implemented in a multi-state cooperative manner, and includes

both water quality and living resources components.

Maryland's nutrient reduction programs (both regulatory and voluntary) focus on achieving the Chesapeake Bay 40 percent nutrient reduction goal and are on track for success. In addition, the Maryland Tributary Strategy's 40 percent Nutrient Reduction Goal requires the identification of watersheds that are of the highest priority for nutrient reduction efforts are closely linked to the Clean Water Action Plan and the Total Maximum Daily Load effort as described below.

### Clean Water Action Plan

Introduced on the 25th Anniversary of the federal Clean Water Act in 1988, the Clean Water Action Plan represents a renewal of the challenge to meet the goals of that Act. The plan works on several levels by raising the consciousness of citizens as stewards of the environment, by

offering funding to participating states, and by creating a framework around which to coordinate many existing efforts. Administered jointly by the U.S. Environmental Protection Agency and the U.S. Department of Agriculture, the Clean Water Action Plan is a comprehensive federal initiative to encourage all 50 states to assess their watersheds and develop restoration and protection action strategies to meet the specific water quality goals defined in the Clean Water Act, as well as other natural resource objectives. These are to be achieved by applying a combination of voluntary and legally mandated regulatory programs designed to restore and protect water quality, living resources and the watersheds on which they depend. The Clean Water Action Plan recognizes the need for all of the states and federal government agencies to fully comply with all of the legally mandated provisions of the Clean Water Act. The Clean Water Action Plan brings these efforts together to comprehensively address the need for water quality and watershed restoration and protection. The Clean Water Action Plan is national in scope, is implemented on a state-by-state basis, and includes both water quality and living resources components for tidal and non-tidal waters. It provides federal funds for watershed restoration and assessment. In developing its own Clean Water Action Plan, Maryland builds on its significant ongoing efforts, including the Chesapeake Bay Agreement and the Clean Water Act mandated monitoring, assessment and regulatory efforts.

### Explore More on Your Own!

MDE	<a href="http://www.mde.state.md.us">www.mde.state.md.us</a>
DNR	<a href="http://www.dnr.state.md.us">www.dnr.state.md.us</a>
MDA	<a href="http://www.mda.state.md.us">www.mda.state.md.us</a>
US EPA Region III	<a href="http://www.epa.gov/region3">www.epa.gov/region3</a>
EPA Bay Program	<a href="http://www.epa.gov/r3chespk">www.epa.gov/r3chespk</a>
US DOI	<a href="http://www.doi.gov">www.doi.gov</a>
USDA	<a href="http://www.usda.gov">www.usda.gov</a>
Army Corps	<a href="http://www.usace.army.mil">www.usace.army.mil</a>
NOAA	<a href="http://www.noaa.gov">www.noaa.gov</a>

*These popular web sites will give you the latest information on environmental issues in Maryland and across the nation.*

## MDE Inspects Dental Radiation Machines

by Bob Maddox and Walter Van Antwerp

“Open wide.”

“Now bite down. Relax and try not to move. This will only take a few seconds.”

These are familiar instructions to many who have had dental x-rays. Yet, as the x-ray procedure continued, who hasn't felt even a little anxious when remembering that x-rays are dangerous to our health?

Health effects from radiation exposure are, fortunately, rare and the benefits of radiation diagnostic procedures far outweigh potential risks. X-rays provide the best diagnostic tool for dentists to see areas of the teeth and jaw that cannot be seen with the eyes. Dentists use x-rays to see the roots of teeth, look at bone, to detect cavities between teeth, tumors in the jaw or infections below the gum. Radiation exposure in large amounts can cause adverse health effects such as skin burns and protection from exposure to electrically produced ionizing radiation is important.

The Maryland Department of the Environment is responsible for enforcing regulations that minimize radiation exposure to people from dental x-ray (radiation) machines. The regulatory activities written in Maryland law are patterned after the U.S. Radiation Control for Health and Safety Act of 1968 and subsequent Food and Drug Administration guidelines. Maryland requires that all radiation exposures be as low as possible while still achieving adequate film development.

“By inspecting regularly, we are preventing unnecessary radiation exposure in routine dental care by ensuring that equipment is properly calibrated and properly used,” said Roland Fletcher, manager of the department's Radiological Health Program.

The department inspects dental facilities and dental xray machines about every three years. During the inspection, the inspector tests the machines for technical performance and assesses the adequacy of operator

credentials, operating procedures and film development procedures. When checking the technical performance of a machine the inspector tests the accuracy and intensity of the radiation beam and the accuracy of the dosage timer. There are about 2,505 dental offices registered in Maryland with a total of 7,125 radiation machines. MDE inspects approximately 800 offices each year.

If a violation is found, a facility is often given the opportunity to fix a minor problem without sanction. When significant violations are found, or there is a pattern of non-compliance, state law allows for fines or other sanctions, depending on the severity of a violation. An inspector also may provide a facility with compliance assistance or advice on how to deal with problems to meet compliance with federal and state laws and regulations.

Not only do regulations and inspections minimize exposure to radiation, but also modern technology has improved and reduced the patient's and the dentist's exposure to radiation.

“Radiation machines made since the 1960s have filters that get rid of scattered radiation,” said Dr. Gary Weiss, a Baltimore-area dentist. “Dentists also use fast-speed film to produce x-rays which means shorter exposure times. The exposure is localized and the amount is minimal.”

Dr. Weiss believes people place themselves at risk of getting serious dental problems by not allowing dentists to perform x-rays.

“The machines are safe when used properly, so it's best to allow your dentist to take x-rays when needed to ensure proper care and treatment,” he said

The average length of exposure to radiation when a dental x-ray is taken is about one quarter of a second. The radiation exposure from the average length and intensity of a dental x-ray is about three times the amount of background radiation that we are exposed to in a day from natural sources such as the sun, the ground and buildings.

## Maryland Schools Invited to apply for Governor's Green School Award

Governor Parris N. Glendening invites students, teachers and administrators from both public and private schools throughout Maryland to apply for the Governor's Green School Award Program which recognizes Maryland schools that demonstrate outstanding environmental practices in their operations and curriculum.

“To best preserve and enhance our green infrastructure for future generations to enjoy, we must build a clear, comprehensive understanding of the basic principles of environmental stewardship,” said Governor Glendening. “Maryland schools have demonstrated their spirit for protecting our natural resources and I look forward to honoring their efforts and to holding up these schools as shining examples for other learning institutions and communities.”

The program, which is not a competition, also will credit schools that best instruct and prepare students to understand and embrace current and future environmental challenges facing Maryland. Representatives from the Governor's Office, Maryland Association of Student Councils, Maryland Association for Environmental and Outdoor Education, and the departments of Education, Natural Resources and Environment will support and guide schools seeking to achieve the status of a Governor's Green School.

All schools will be notified of the status of their application by April 1. A recognition ceremony will be held during earth week, April 19-26. Applications are available by calling Catherine Felker at (410) 260-8723 or by E-mail at [cfelker@dnr.state.md.us](mailto:cfelker@dnr.state.md.us) and are due by March 15.

## Tier Two Emergency and Hazardous Chemical Inventory Reports Due

by Pat Williams

Tier Two Emergency and Hazardous Chemical inventory reports for the 1998 calendar year are due on March 1, 1999. These inventory reports are submitted pursuant to Section 312 of the Emergency Planning and Community Right-to-Know Act (EPCRA), sometimes known as SARA Title III.

EPCRA Section 312 requires owners or operators of facilities that store certain amounts of certain substances to provide a Tier Two report to their state and local governments annually. A facility that has 10,000 pounds or more of a hazardous substance present at any one time during the year must file an inventory report. And, any facility that has 500 pounds or the threshold planning quantity (whichever is lower) of a listed Extremely Hazardous Substance must file an inventory report.

Effective for the 1998-reporting year, USEPA has changed the reporting requirements and raised the threshold planning quantities for gasoline and diesel fuel at retail gas stations. Due to the changes, gas station owners may not have to file a Tier Two report on

March 1, 1999. If your facility:

- stores less than 75,000 gallons of gasoline (all grades combined), **and**
- stores less than 100,000 gallons of diesel; **and**
- your fuel is stored entirely under ground ; **and**
- you are in full compliance with underground storage tank regulations

Your retail gas station facility must meet all three conditions for the higher threshold to apply. All county requirements are still in effect. As they have in the past, other businesses that store gasoline or diesel fuel must use the 10,000 pound threshold to determine reporting status.

The new rule affects federal reporting guidelines only. Maryland Department of the Environment will follow the new threshold levels for retail gas stations for submission of Tier Two reports to the SERC. You must check with the Local Emergency Planning Committee for your jurisdiction to find out if they will follow the new guidelines. If you have questions about the new reporting requirements, contact Patricia Williams at (410) 631-3800.