INTERIM REPORT OF THE
JOINT SUBCOMMITTEE STUDYING

POLLUTION PREVENTION

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

SENATE DOCUMENT NO. 59

COMMONWEALTH OF VIRGINIA
RICHMOND
1994

Joint Subcommittee Members

Senator R. Edward Houck, *Chairman*
Delegate Gladys B. Keating, *Vice Chairman*
Senator Janet D. Howell
Senator Frederick M. Quayle
Delegate Flora D. Crittenden
Delegate Phillip A. Hamilton
Delegate Kenneth R. Plum
Michael J. Campilongo, Esquire
Kimberly L. Coble
The Honorable Elizabeth H. Haskell
Georgia H. Herbert, Esquire
James C. McKean

Staff

Division of Legislative Services

Franklin D. Munyan, *Staff Attorney*
Shannon R. Varner, *Staff Attorney*
José A. Rosado, *Senior Executive Secretary*

Senate Committee Operations

Thomas C. Gilman, *Chief Committee Clerk*

TABLE OF CONTENTS

10. 1991 Toxic Release Inventory Summary
11. TRI Comparison, 1987-1991
12. Statewide Pollution Prevention Goal Proposal
13. Pollution Prevention Implementation Within All State Agencies Proposal
14. Procurement by State Agencies Proposal
15. Pollution Prevention Planning by State Agencies Proposal
16. Pollution Prevention Within DEQ Proposal
17. Proposed Regulatory Incentives (Virginia Manufacturers Association)
18. Governor's Environmental Excellence Awards Program proposal (Virginia Manufacturers Association)
19. Pollution Prevention Planning Proposal (Chesapeake Bay Foundation)
20. Letter to George F. Allen, January 18, 1994
21. Senate Joint Resolution 173 (1994)
22. House Bill 1220 (1994)
23. House Bill 1251 (1994)
24. House Bill 1215 (1994)
25. House Bill 1216 (1994)
26. House Bill 1221 (1994)

INTERIM REPORT OF THE JOINT SUBCOMMITTEE STUDYING POLLUTION PREVENTION

TO: The Honorable George F. Allen, Governor
and
the General Assembly of Virginia

I. EXECUTIVE SUMMARY

Pollution prevention means the use of materials, processes or practices that reduce or eliminate the creation of pollution or waste at the source. As such, it is an approach to environmental protection that differs from the traditional command-and-control approach that focuses on limiting emissions by the use of "end-of-pipe" control technologies.

The joint subcommittee to study pollution prevention in the Commonwealth was created by Senate Joint Resolution 103 of 1992 and was continued for a second year by Senate Joint Resolution 207 of 1993.

In its second year, the joint subcommittee continued to carry out its three missions of identifying and evaluating pollution prevention activities, assessing the range of pollution prevention activities, and studying ways of increasing education and technical assistance.

The recommendations of the subcommittee's second year of work include the following:

- Pollution prevention should be given a high profile within the Department of Environmental Quality. The implementation of pollution prevention projects, including technical assistance and outreach, should be one of the agency's highest priorities.

- Agencies of state government should adopt pollution prevention approaches whenever feasible. The Commonwealth can thereby set an example for private industry, while generating economic savings and affording greater environmental protection.

- Public procurement should be accessible to purveyors of goods and products that contain less toxic and hazardous substances than those which are currently being purchased. This will generate a potential benefit to entrepreneurs developing alternative, less-polluting goods and products who may benefit from the market for such materials.

- A voluntary statewide goal for pollution prevention efforts will aid efforts to reduce the use, generation and release of environmentally-hazardous substances.

- Many groups and organizations are currently involved in a variety of programs aimed at increasing awareness of pollution prevention opportunities. Their efforts should be applauded. The Governor's Environmental Excellence Awards program should be given greater attention, and should place greater focus on pollution prevention success stories.

- The joint subcommittee studying pollution prevention should be continued for another year in order to monitor source reduction efforts and continue to work for wider implementation of pollution prevention initiatives.

II. INTRODUCTION

The 1992 Session of the General Assembly established the joint subcommittee to study pollution prevention in the Commonwealth pursuant to Senate Joint Resolution 103. The joint subcommittee was continued by the 1993 Session of the General Assembly as provided by Senate Joint Resolution 207. Copies of these resolutions are attached as Appendix 1.

Senate Joint Resolution 103 of the 1992 Session established the purpose of the study. The joint subcommittee was instructed to (i) identify and evaluate potential incentives for the adoption of pollution prevention initiatives, (ii) assess the current range of pollution prevention activities in the Commonwealth, and (iii) identify and evaluate methods for increasing the availability of pertinent education and technical assistance. The charge of the joint subcommittee was not changed by Senate Joint Resolution 207.

The joint subcommittee was composed of 12 members. Of the seven legislative members, three are members of the Senate and four are members of the House of Delegates. The only change among the legislative members between the study's first and second years was the appointment of Delegate Flora D. Crittenden to replace Delegate Whittington W. Clement.

The joint subcommittee also included the Secretary of Natural Resources and the Secretary of Economic Development (now Commerce and Trade) or their designees, and three citizen members appointed by the Governor to represent business and industry, environmental organizations, and local

government. Due to the resignation of Jolene Chinchilli, former Governor Wilder appointed Kimberly Coble as the representative of environmental organizations during the course of the study. Michael Campilongo, the business and industry representative, resigned prior to the joint subcommittee's final meeting. A replacement for Mr. Campilongo has not yet been appointed.

The 1993 resolution directed the joint subcommittee to complete its work in time to submit its findings and recommendations to the 1994 legislative session. However, due to the on-going nature of its duties, the joint subcommittee has been continued by the General Assembly for one additional year.

This document recounts the joint subcommittee's activities during its second year. The activities of the joint subcommittee during the first year of the study are set forth in Senate Document 41 (1993).

The joint subcommittee met on July 21, September 13, November 8, December 13, 1993, and January 11, 1994. Over the course of these five meetings, the members carried out their duties of identifying and evaluating incentives, assessing current activities, and studying methods for expanding technical assistance.

III. INCENTIVES FOR THE ADOPTION OF POLLUTION PREVENTION INITIATIVES

In its second year of work, the joint subcommittee continued its task of identifying and evaluating potential incentives for the adoption of pollution prevention initiatives. The joint subcommittee has reported that persuading industry to adopt pollution prevention approaches and alternatives to traditional command-and-control measures focused on limiting "end of the pipe" discharges will depend on the availability of incentives and the removal of barriers.

However, there is no consensus on the best form of incentive for the adoption of pollution prevention initiatives. A broad range of potential incentives for pollution prevention activities has been identified. The joint subcommittee was given a copy of a White Paper approved in July 1992 by the directors of the Association of State and Territorial Solid Waste Management Officials (ASTSWMO), which identifies 28 mechanisms for creating incentives and removing barriers. A copy of the White Paper is attached as Appendix 2. The Association notes that a combination of mechanisms targeted to different groups is more likely to be effective than a

single mechanism dealing with incentives or disincentives regarding pollution prevention programs.

Incentives to promote pollution prevention practices, and disincentives creating barriers to the adoption of such practices, have been broadly classified into four categories. First, the high cost of process and equipment modifications, raw material and product substitution, and enhanced automation and control can be reduced through tax and fiscal approaches. Options include accelerated depreciation for capital equipment purchases used for pollution prevention, allowing tax deductions or credits for actual pollution prevention or reductions achieved, and allowing deductions above 100 percent to the interest paid on loans for purchasing pollution prevention equipment.

Second, economic or financial mechanisms can be used to encourage pollution prevention activities. Examples include grants or other direct subsidies, and state-issued low or no interest loans and loan guarantees. Economic mechanisms also include raising the cost of not preventing pollution, such as fees and taxes on waste generation, treatment, and disposal.

The third approach to creating incentives and removing barriers includes organizational and institutional mechanisms. Several of the options listed, such as information programs, technical assistance programs, and a Governor's awards program, have already been implemented in Virginia. Other options include state-sponsored research and development, and purchase or bidding preferences for government contracts.

Finally, regulatory mechanisms can create incentives or remove barriers. The ASTSWMO White Paper identifies eight approaches, including exemptions from permitting or regulatory requirements or expedited permitting for pollution prevention-related amendments or modifications. Other examples include (i) enforcement of regulations, (ii) clarification of regulations, (iii) clear reporting requirements, and (iv) mandating toxics reduction or facilities planning.

The joint subcommittee's review of incentives for pollution prevention focused on economic options, the ability to provide regulatory flexibility, and the potential impact of new and pending federal actions.

A. Financial Incentives

1. Senate Bill 570 (1993)

The joint subcommittee broached the subject of creating financial incentives for pollution prevention in 1992. The joint subcommittee recommended that legislation be introduced in the 1993 Session of the General Assembly expanding the existing sales and use tax exemption for certified pollution control facilities and equipment to include those which are certified by the air, water or waste boards as materially reducing the amount of pollution released into any waste stream and materially reducing the hazards to public health or the environment associated with their release. The legislation was introduced by Senator Houck in the 1993 Session as Senate Bill 570. This measure was directed by the Senate Finance Committee to be studied by a joint subcommittee of the Senate and House Finance Committees pursuant to Senate Joint Resolution 249.

The pollution prevention study subcommittee received a report at its July 1993 meeting from John MacConnell, staff to the SJR 249 subcommittee. Two aspects of SB 570 created concern among the finance subcommittee's members. First, the potential breadth of the tax exemption may open the door to substantial loss of revenue for the Commonwealth. The Department of Taxation was unable to ascertain the impact of the proposed exemption on the Commonwealth's general fund, the Transportation Trust Fund, and local revenues because the definition of "certified pollution control equipment and facilities" is unclear. The impact was described as "negative" and "certain to be significant." The cost to the treasury of the existing exemption for pollution control equipment is estimated to be $14 million annually. In the absence of assurances that any revenue reductions will be offset by measurable improvement in environmental quality, staff reported that the finance committees are unlikely to endorse an expansion of the exemption.

Second, the definition of "certified pollution control equipment and facilities" is contained in a section of the tax code creating an optional local property tax exemption. Article X, Section 6 of the Virginia Constitution allows property tax exemptions to be granted for equipment used "primarily" (which has been interpreted to mean more than 50 percent) for pollution abatement or prevention. SB 570 would grant a sales tax exemption, and permit localities to grant a property tax exemption, for facilities and equipment which "materially" reduce pollution. Staff questioned the necessity of creating the optional local property tax exemption, and noted that only one locality had exercised this option for pollution control devices.

Mr. MacConnell advised the subcommittee that endorsement of any new tax exemption bill would be difficult because of projections of a state revenue shortfall of between $700 million and $1.2 billion. However, several suggestions were offered which may make a tax incentive bill more palatable to the finance committees. These included crafting the incentive as an income tax exemption or credit with a cap on the maximum amount that may be claimed; coupling a tax break with measurable waste reductions or mandated activities; and clarifying the processes used by the environmental boards in making eligibility certifications to the Department of Taxation.

Lana Murray, Senior Tax Policy Analyst with the Department of Taxation, discussed Senate Bill 570 at the joint subcommittee's second meeting. Ms. Murray justified the Tax Department's inability to calculate the fiscal impact of the bill because it does not contain a clear definition of exempt equipment and increases the number of agencies responsible for certifying projects. The impact would, however, certainly be negative and significant. A broad reading of the exemption could encompass any energy efficient or improved equipment or facility.

The existing exemption is limited to equipment and facilities that the Air Pollution Control Board and State Water Control Board require under the regulatory programs. Notwithstanding this limitation, the exemption has been applied broadly to include lighting, landscaping and other structures whether or not used directly in controlling pollution. The Department is in the process of overhauling its regulations regarding pollution control equipment and facilities, and is working with DEQ to clarify criteria for the exemption. The Tax Department will explore ways the two agencies can work together to address the impact of the exemption on items incidental to actual pollution control and items used at a facility that play an active, but not primary, role in the pollution control process.

The joint subcommittee also received advice from Ms. Murray regarding policy considerations in the creation of economic incentives for pollution prevention. Generally, direct appropriations (loans, grants or other subsidies) are more beneficial than tax expenditures (exemptions, credits, deductions, or exclusions). Tax expenditures do not target the benefits to the desired group as efficiently as direct expenditures, and direct expenditures provide more governmental control over the use of funds and benefit specifically targeted groups. Direct expenditures also tend to be subject to greater scrutiny by policy makers than tax expenditures. A copy of Ms. Murray's presentation is attached as Appendix 3.

2. Financial Incentives Offered by Other States

In the first year of the pollution prevention study, the members were advised that legislation in other states has provided financial assistance to subsidize pollution prevention activities through grants, loans, tax deductions and tax credits. In response to requests made at the subcommittee's July meeting, the issues of economic incentives and grant program funding were revisited during their September meeting.

a. Tax Incentive Programs

Financial incentives for implementation of pollution prevention activities may be provided through a state's tax policies. The tax incentive policies adopted by Delaware, Oregon, and Connecticut were reviewed in detail by the joint subcommittee.

Delaware's Green Industries Initiative includes a source reduction program that makes businesses eligible for a corporate income tax credit of $250 for each 10 percent increment in waste reduction. To be eligible, companies must voluntarily reduce the amount of waste they generate in their production processes by a minimum of 20 percent for chemicals reported under the Toxics Release Inventory, or 50 percent for other wastes. Eligible waste reduction must not be the result of any regulatory or legal requirements, and must be documented in a source reduction plan. The reduction in waste must be a reduction in waste generation, and not a reduction in waste disposal through recycling or waste utilization. The income tax credits are provided over a five-year period.

In the 18 months of the program's existence, no company has applied for a tax credit. According to Phil Cherry of the Department of Natural Resources and Environmental Control, the size of the tax credit is too small to act as an incentive for businesses. The fiscal impact has, therefore, been zero.

A much greater incentive is created by the Green Industries Initiative's expedited permitting process. To be accepted into the program, an applicant must file a plan showing how it will meet the minimum reductions required for the tax credit program (20 percent for TRI emissions, 50 percent for other wastes). Once accepted into the program, the company's permit applications receive top priority, and are processed before other companies that may have already requested permits. Mr. Cherry noted that thus far there has not been a problem of too many applicants receiving expedited permitting. Companies that may not be serious about meeting the goals of their source reduction plans may be deterred from seeking expedited permitting status because those who do not meet their goals are thrown out of the program. Their permit applications will then be moved to the bottom of the list.

Oregon provides an income tax credit for 50 percent of the certified costs of facilities to prevent, control, or reduce pollution. The program began in 1967 to help offset the cost of pollution control equipment, and has been expanded since then to include facilities designed to reduce or eliminate hazardous waste. This program reflects an attempt to isolate the benefits from the costs of installing facilities that prevent or control pollution. As the following summary indicates, it is a difficult task.

In order to obtain a tax credit, an applicant must obtain a Pollution Control Facility Certificate from the Oregon Department of Environmental Quality (ODEQ). In order to qualify for the credit, a facility must either have (i) the principal purpose of complying with a state requirement to prevent, control or reduce pollution or waste or (ii) the sole purpose of preventing, controlling or reducing a substantial quantity of air, water, or noise pollution or solid or hazardous waste.

The maximum credit in any year is one half of the certified cost of the facility multiplied by the "certified percentage allocable to pollution control," divided by the number of years of the facility's remaining useful life. The most difficult part is calculating the percentage of the cost properly allocable to pollution control. The ODEQ looks at such things as the extent to which it is used to recover and convert waste products to a salable commodity, the annual percent return on investment in the facility, alternative methods for achieving the same pollution control objectives, and the relative savings or cost increases resulting from its installation.

If the applicant is found to have benefited economically from its installation of the facilities, the percentage of the investment allocated to pollution control is zero and the credit will be denied. The Oregon regulations provide a test for calculating the eligibility of a facility using a comparison of the industry average annual percent return on investment to the pre-tax rate of return on shareholders' equity for all U.S. manufacturing companies for the preceding five years. An overview of the Oregon Pollution Control Tax Credit Program is attached as Appendix 4.

The Connecticut Department of Revenue Services administers a program which allows a five-percent tax credit of the purchase price of air pollution abatement facilities and the treatment of industrial waste. Eligibility for the credit is determined by the Commissioner of Environmental Protection. The Commissioner may make the certification to a portion of the property which has as its primary purpose the reduction, control or elimination of pollution. Certain types of equipment and services, including engineering time, used in a pollution prevention project may be eligible for the credit, according to

David Lariviere of the state's Department of Environmental Protection. Connecticut's applicable tax relief statutes are attached as Appendix 5.

b. Grant Programs

Grants for pollution prevention projects allow programs to target specific projects for assistance. Grants can be awarded competitively or to all applicants meeting certain criteria. Eligibility criteria can be tailored to meet certain goals, such as funding pilot projects in important industries, providing funds to applicants that otherwise would not have the economic resources to institute a project, and encouraging the use of new technologies and approaches. In addition to targeting recipients which promise the greatest benefit, grant programs allow the state to put a fixed cap on the total cost of the program, which may not be possible with other types of financial incentives. Examples of state grant programs are described in the following paragraphs:

Minnesota: Minnesota's pollution prevention program includes a grant program. Legislation makes $150,000 available for grants. The grant program is funded by fees required to be paid by facilities that report toxic chemical releases. Fees are assessed at the rate of $150 for each toxic pollutant released, plus two cents per pound of pollutant released, up to $30,000, with facilities releasing less than 25,000 pounds paying a $500 fee. Grants are awarded on a competitive, matching basis, with every two dollars of state money requiring one dollar from the applicant. Priority is given to projects that offer the greatest potential to prevent pollution, minimize the transfer of pollutants from one medium to another, and develop information that can be shared with industries throughout the state.

Wisconsin: Wisconsin's grant program targets facility planning rather than pilot projects. Companies may receive grants of amounts up to 50 percent of the cost of a hazardous pollution prevention audit or $2,500, whichever is less. The program is funded by appropriations from the general fund.

Connecticut: ConnTAP provides matching challenge grants of up to $7,500 each, available annually to help recipients identify opportunities for pollution prevention or improved waste management or to evaluate the feasibility of specific methods and technologies for preventing pollution. From its inception in 1988 through September 1992, the grant program has awarded $100,000 to fund 21 projects. The grant program receives money from the state's general fund.

Other States: Several other states have grant programs which finance their pollution prevention programs entirely or partially through fees on

facilities releasing pollutants. These states include Maine, North Carolina, and Rhode Island. North Carolina, for example, provides that a portion of fees may be used to fund a matching grant program, though to date no moneys have been directed to the program.

B. Regulatory Flexibility

As an alternative to offering financial benefits, the Commonwealth can encourage industry to implement source reduction projects by offering regulatory assistance and other noneconomic incentives. Harry E. Gregori, Jr., Director of the Policy Division at the Department of Environmental Quality, informed the joint subcommittee that the agency is considering an expedited permitting process. DEQ is currently looking at several ways to provide flexibility in environmental regulations in order to accommodate pollution prevention efforts. Areas of potential regulatory flexibility include compliance inspections, settlements of enforcement actions, and permit issuance.

Mr. Gregori noted that inflexibility in federal laws and the state's obligations under agreements by which the state receives federal grant money limit the Department's ability to exercise regulatory flexibility. Examples of barriers created by federal requirements include regulations that require design technologies rather than setting performance standards, and the rigid definition of solid waste.

The advantages of regulatory flexibility were highlighted in a presentation at the joint subcommittee's December meeting by Ronald Schmitt, Director of Environmental Performance Management at Amoco Oil Company. Mr. Schmitt underscored both the potential benefits of the pollution prevention approach and the barriers to its implementation. Amoco, EPA and DEQ completed a joint study of pollution prevention opportunities at Amoco's Yorktown refinery in 1992. The study concluded that the objectives of environmental regulations can be achieved more effectively with a coordinated, site-based mandate system. Yet today's regulatory structure provides no established mechanism for allowing a facility to do so. Mr. Schmitt cited the example of benzene emissions from the plant's wastewater treatment facility. Regulations required these emissions to be controlled at a cost of over $30 million, but did not require emission control equipment to be installed at the loading facility where their presence would have eliminated more releases at a cost of approximately $6 million.

One result of the Yorktown refinery study has been a greater focus on allowing flexibility and encouraging innovation in environmental laws. The

joint subcommittee agreed that regulatory flexibility was a commendable idea. Some members expressed concern that Virginia could not legislate regulatory flexibility because its programs reflect the requirements of federal environmental laws. However, until Congress gives the states the right to be flexible, it will be difficult to move beyond the traditional command and control approach.

Mr. Schmitt concluded that the best test for effective environmental regulations should be the overall benefit to the environment, regardless of the technology used to achieve it. To that end, facility planning would be appropriate if implementation of the plan would be allowed in lieu of compliance with existing regulatory standards. Pollution prevention opportunities that are identified in the planning process will not necessarily be implemented, however. Voluntarily reducing emissions may make achieving any mandatory percentage reductions in emissions that may be imposed in the future more difficult and expensive.

C. Recent and Pending Federal Programs

Laws and programs at the federal level have a direct impact on the ability of states to offer incentives and remove barriers for pollution prevention. During the first year of the study, the members were informed of the plethora of federal environmental laws, including SARA Title 111, RCRA, and the federal Pollution Prevention Act of 1990, which provide a framework for state activities in this area.

Recent actions by the Clinton Administration indicate that the federal government's emphasis on pollution prevention is not waning. Eric Schaeffer, Director of the Pollution Prevention Policy Staff at the Environmental Protection Agency, addressed the joint subcommittee's second meeting to discuss recent developments. He provided the subcommittee with ideas for sources of additional federal money for pollution prevention efforts. Additional money is being made available by the Departments of Energy and Defense for new environmental technologies. EPA is also trying to allow states to use for pollution prevention portions of the funds allocated for other federally mandated activities.

The EPA's role has been to motivate people to adopt pollution prevention initiatives through voluntary programs, assisting in the development of new technologies, and administering the Toxics Release Inventory (TRI) under the Emergency Planning and Community Right-to-Know Act. President Clinton has heightened the profile of source reduction at the federal level by signing Executive Order #12856 on August 3, 1993. The order requires all agencies of the federal government (i) to comply with the reporting requirements of the TRI program, (ii) to reduce their releases of toxic materials by 50 percent

by 1999, and (iii) to examine their practices regarding the purchase of extremely hazardous materials.

The Executive Order, entitled "Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements," also requires each federal agency to develop a plan and goals for reducing its own manufacturing, processing, and use of products containing extremely hazardous substances or toxic chemicals. Every agency must also develop a written pollution prevention strategy policy statement emphasizing source reduction as the primary method of environmental protection and compliance. A copy of the Executive Order is attached as Appendix 6.

Mr. Schaeffer acknowledged that regulatory flexibility is an integral aspect of a program creating incentives for pollution prevention. He noted that environmental regulations are a critical factor in motivating people to implement pollution prevention activities. These regulations can encourage source reduction initiatives by increasing the costs of waste disposal. However, regulations can be a deterrent to pollution prevention by mandating technology-based standards. EPA is attempting to address these concerns by designing new rules to promote source reduction when it will achieve the best performance, is cost effective, and meets statutory deadlines. The new rules will provide flexibility for industry to use new technologies that meet or exceed compliance requirements, while reducing transaction costs and eliminating cross-media transfers of waste.

The EPA's Source Reduction Review Project (SRPP) is demonstrating the feasibility of using a source reduction approach in the promulgation of environmental regulations. The Agency has earmarked 24 standards for development under this program. A unique facet of the SRPP approach is the development of regulations for specific industries. Though it may reduce inconsistent and inflexible requirements, Mr. Schaeffer cautioned that setting regulations on an industry-wide basis will not preclude arguments over how much pollution is unacceptable.

Mr. Schaeffer conceded that states will not be able to incorporate flexibility into their environmental permitting activities if federal rules are not consistent with respect to air, water and solid waste emissions. EPA is fostering regulatory flexibility through such programs as the joint study of the Yorktown refinery with Amoco Oil Company. He noted that recent federal legislation, such as the Clean Air Act Amendments of 1990, indicates a trend of moving from technology-based standards to more flexible risk-based standards.

With regard to the success of state pollution prevention laws generally, Mr. Schaeffer noted that most are too new to gauge their effectiveness. He

disputed allegations that regulatory inflexibility was due solely to federal statutes. The Blackstone Project in Massachusetts was praised as an example of a state approach to pollution prevention which creatively combines inspections by regulators with technical assistance provided by a separate fee-funded agency.

Another recent development in federal pollution prevention efforts is the issuance of EPA's Pollution Prevention Policy Statement, entitled "New Directions for Environmental Protection," by Administrator Carol Browner on June 15, 1993. The Statement embraces the agency's new focus on pollution prevention. However, Ms. Browner has challenged the agency "to go further" and "build pollution prevention into the very framework of our mission to protect human health and the environment."

Objectives of EPA under the Clinton Administration include strengthening the network of state and local pollution prevention programs, integrating source reduction into regulatory, permitting and inspection programs, building partnerships with the private sector, and looking for new pollution prevention technologies that increase competitiveness and enhance environmental stewardship. Concrete actions taken thus far include requesting that EPA's budget include a $33 million increase for pollution prevention programs. A copy of the policy statement is attached as Appendix 7.

In addition to these recent actions by the federal executive branch, several pieces of legislation now before Congress could have a large impact on the implementation of pollution prevention initiatives in the Commonwealth. Foremost among the proposals is the pending reauthorization of the Clean Water Act. Senate Bill 1114 was introduced in Congress on June 15, 1993, by Senators Baucus and Chafee. Four aspects of this reauthorization of the Clean Water Act that have caused much controversy would (i) require certain applicants for an NPDES permit to submit a pollution prevention plan for the facility which establishes goals for the reduction and use of pollutants and by-product generation; (ii) direct EPA to consider multimedia and pollution prevention concerns when writing industrial effluent guidelines; (iii) require EPA to phase out the use of certain highly toxic or bioaccumulative substances; and (iv) give EPA the authority to mandate source reduction, including plant-process changes. (Environmental Policy Alert, June 23, 1993, pp. 13-18.)

Another federal law undergoing review is the Safe Drinking Water Act. EPA staff has recommended to Congress that mandatory state programs be required to protect surface and ground water sources using pollution prevention approaches. Source water protection would be implemented through "baseline" local programs for all public water systems, to include an

inventory of sources of contamination and public education initiatives. (Environmental Policy Alert, August 18, 1993, pp. 6-7.)

IV. THE CURRENT RANGE OF POLLUTION PREVENTION ACTIVITIES

The second charge of the joint subcommittee was to assess the current range of pollution prevention activities in the Commonwealth. In the study's initial year, the members directed their attention to pollution prevention initiatives in the industrial and manufacturing sectors of the economy and heard from many companies of successful programs. In its second year, the focus shifted from existing source reduction programs at manufacturing sites to other economic sectors. The members also studied the activities of the DEQ's pollution prevention office.

A. Pollution Prevention in Non-Industrial Sectors

Opportunities exist for reducing pollution at the source in many sectors of economy. Among the areas identified by the joint subcommittee are agriculture, energy and the consumer sector.

1. Agriculture

Agricultural practices produce significant environmental effects, primarily through the application of pesticides and fertilizers. Farmers apply over 11 million tons of fertilizer and 8 million pounds of pesticides annually to over 2 million farms covering 800 million acres of land. Faced with contaminated ground water and exhausted soils, many state agriculture departments are exploring innovative pollution prevention practices.

Agricultural operations have been blamed as a nonpoint source of water pollution. A variety of state and federal laws address this problem by requiring farmers to prepare plans. Unfortunately, requirements of the programs may be inconsistent and burdensome. Ken Carter of the U.S. Department of Agriculture's Soil Conservation Service, speaking at the subcommittee's December meeting, described a program entitled Total Resource Conservation (TRC) Planning.

TRC Planning seeks to provide landowners with a plan of decisions that conserves, improves, and sustains soil, water, plant, animal and air resources. By developing a comprehensive plan for farmers, state and federal agencies can provide technical assistance that focuses on the "big picture" rather than discrete elements. Agencies cooperating in the TRC Planning

program include USDA, the Department of Conservation and Recreation, the Virginia Association of Soil and Water Conservation Districts, the Virginia Department of Agriculture and Consumer Services, and the Cooperative Extension at Virginia Tech and Virginia State University.

Federal legislation also affects pollution prevention in the agriculture sector. The federal Food, Agriculture, Conservation and Trade Act of 1990 sets a goal of enrolling 45 million acres in the Conservation Reserve Program, which takes farmland out of production for 10 years. The 1990 Farm Bill also established the Wetland Reserve Program, with a goal of enrolling one million acres, including farmed and converted wetlands. Under this program, farmers receive a lump sum payment if they grant a permanent easement and implement an approved wetland restoration plan. The 1990 Farm Bill authorized $80 million to expand the LISA (low input sustainable agriculture) program operated by the U.S. Department of Agriculture. The program aims to help farmers use production resources more efficiently, thereby reducing the need for chemicals. Over 100 projects have been funded on such topics as using different cover crops to reduce leaching of nutrients into ground water and controlling weeds by growing rye or other crops that are naturally toxic to some weeds.

The federal government is actively involved in preventing pollution in the use of agricultural pesticides. In June 1993 the EPA, the Department of Agriculture, and the Food and Drug Administration jointly announced a call for a reduction in pesticide use. EPA is working with these two agencies to develop cost-effective approaches to curbing excess application of pesticides.

2. Energy

Two initiatives in Virginia have an indirect effect on pollution prevention by reducing the need to burn fossil fuels. In August 1991 Governor Wilder announced the Virginia Energy Plan, which contains two goals: increasing energy efficiency and conservation, and promoting renewable and alternative sources or energy. The Plan requires each state agency to adopt an energy management plan to reduce energy consumption by 25 percent in 1998, measured against 1990 levels. The Plan also mandates that 10 percent of local government vehicle fleets be converted to use electricity, ethanol, or compressed natural gas, and that 50 vehicles in the state's fleet be converted to compressed natural gas.

The second energy program in Virginia indirectly related to pollution prevention is demand side management (DSM), also known as conservation and load management. Demand side management programs seek to have electric utilities meet energy needs by reducing or altering the timing of demand rather than by increasing supply. By shifting electricity usage from

peak periods to off-peak times, utilities can avoid constructing new power plants. Creative approaches are needed because utilities traditionally are paid for each kilowatt of energy produced and sold; reducing their volume of sales needs to be made financially attractive.

The Virginia State Corporation Commission issued an order in March 1992 permitting the cost of DSM programs to be recovered through the rate base with a return on investment. The SCC is in the process of studying methods of determining the cost effectiveness of conservation and load management programs. The joint subcommittee did not study this issue after receiving an initial briefing due to the existing monitoring of the issue by the Virginia Coal and Energy Commission.

3. The Consumer Sector

Consumer awareness of pollution prevention is increasing. Opportunities for consumers to make a difference are plentiful, and states have adopted a variety of measures to encourage pollution prevention in this sector of the economy.

In the last few years the public has seen a proliferation of environmental terms, such as "recycled," "recyclable," and "ozone friendly." However, the meaning of these terms is not standardized, and these claims do not assess the overall relative environmental impacts of different products. Several states, including Rhode Island, New Hampshire, Connecticut, and New York, have passed legislation regulating the use of a recycling logo. An eight-state task force is investigating environmental marketing claims that may violate state laws against consumer fraud and deceptive advertising.

Several states have banned the use of products found to contribute to pollution. One example is Virginia's ban of phosphates in detergents, which has contributed to a 20-percent reduction in phosphorus levels in the Chesapeake Bay since 1984. Other products banned by Virginia include tributyltin boat paint, which is toxic to shellfish, and carbofuran, an agricultural pesticide.

Eight states have enacted laws phasing out the use of four heavy metals (leas, mercury, cadmium, and hexavalent chromium) in packaging materials. The states that have adopted model CONEG legislation include Connecticut, Iowa, Maine, New Hampshire, New York, Rhode Island, Vermont, and Wisconsin. Virginia may soon join the list of states with the passage by the General Assembly of House Bill 1202 in the 1994 Session. Though the legislation was not advocated by the joint subcommittee, it is an example of the wide range of opportunities for source reduction.

B. Implementation by the Department of Environmental Quality

An assessment of the range of pollution prevention in Virginia requires reviewing the activities of the Department of Environmental Quality. DEQ came into existence on April 1, 1993. The promotion of pollution prevention was listed as the first of the agency's stated goals. The joint subcommittee was accordingly anxious to monitor the DEQ's implementation of this goal.

Before DEQ was created, the state's pollution prevention efforts were centered in the Waste Reduction Assistance Program at the Department of Waste Management. Following DEQ's creation, the Program was placed within the Science and Innovative Programs section of DEQ's Policy and Research Division. A DEQ organizational chart showing the location of the pollution prevention office is attached as Appendix 8. Three full-time employees and two part-time employees staff the Waste Reduction Assistance Program.

Sharon K. Baxter, the Program's manager, announced at the subcommittee's July 1993 meeting that the building of a statewide pollution prevention infrastructure will be greatly assisted by the award of a $311,000 matching grant from the U.S. Environmental Protection Agency. The first phase of grant activities will include integrating pollution prevention throughout DEQ. The next step will include integrating source reduction concepts in local governments, planning districts, and other state agencies. Additional activities underway or planned by the Program focus on increasing industry outreach. Specific projects include producing instructional videotapes, scheduling regional and statewide industry roundtable meetings, and preparing resource manuals for specific industrial sectors.

Ms. Baxter presented the results of a survey of clients of the Waste Reduction Assistance Program completed in May 1993. Conclusions drawn from survey responses included:

- Industry needs more help understanding regulations.
- Industry is very interested in financial assistance, preferably in the form of tax relief for equipment purchases.
- Video is the preferred medium for delivering industry-specific technical assistance.
- The Program did an excellent job of handling clients' requests.
- The need for pollution prevention outreach programs continues.

Mr. Gregori told the members that the Program was placed in the Policy Branch rather than the Operations Branch in order to separate it from the agency's regulatory functions. DEQ Director Richard N. Burton stressed that the waste reduction efforts are properly a function of the policy branch because it crosses all lines of the organization. The direction and "personality" of the organization are set in the policy department.

DEQ is in the process of implementing the pollution prevention legislation endorsed by the joint subcommittee and enacted during the 1993 Session of the General Assembly. The Department waited until the joint subcommittee completed its work before convening a pollution prevention advisory panel of representatives of industry, education, environmental groups, and government. A list of the members of the advisory panel appointed pursuant to § 10.1-1425.13 is attached as Appendix 9.

DEQ does not have sufficient resources to fund pilot projects, institute a waste exchange, or award grants, as authorized by the 1993 legislation. The Department's spokesmen expressed hope that funds can be made available from the EPA and other sources, such as the National Science Foundation, to fund these new initiatives.

At the request of the joint subcommittee, Mr. Gregori returned to address the issue of the DEQ's commitment to the concept of pollution prevention at the November 1993 meeting. Several recent outreach activities aimed at increasing awareness of pollution prevention were described. Activities included: (i) arranging assessments of source reduction opportunities for three companies in the Bristol area; (ii) establishing a program for training professors at Virginia universities at the University of Tennessee's Knoxville campus; (iii) contributing $7,780 to the production of a pollution prevention videotape to be prepared in conjunction with VMI Research Laboratories; (iv) preparing a manual for wood finishing industries in Virginia focusing on the use of less toxic solvents as a method of reducing the generation of hazardous wastes; and (v) sending a videotape for the printing industry, which was completed in September, to over 150 printers. In addition, DEQ is working with CIT, the Virginia Manufacturers Association, the State Chamber of Commerce and other groups in promoting source reduction strategies.

The growing emphasis on pollution prevention efforts within DEQ is reflected in the growth of its budget from $160,000 a year ago to approximately $800,000 today. Last year's financial commitment consisted of $120,000 for a three-person staff and $40,000 for outreach. DEQ has now pledged to add three more employees to the program, which will double its staffing expenses to $240,000. The funds allocated to match money from the federal Environmental Protection Agency has jumped from $30,000 to

$155,000, which will produce a total of $310,000 available for outreach in the current period.

Finally, approximately $400,000 of DEQ's resources will be committed to pollution prevention through the implementation of source reduction efforts in all enforcement, inspection and permitting activities. Personnel carrying out these activities will be trained by the pollution prevention experts to identify and advocate pollution prevention opportunities where feasible. For example, the Waste Program is now requiring that enforcement settlement agreements address pollution prevention by, for example, requiring waste audits. A similar initiative is going forward in the Water Program. Though ascertaining the precise amount of resources to be spent on this goal in the course of other agency functions is difficult, the $400,000 estimate is based on 10 percent of staff time being spent on pollution prevention efforts.

Mr. Gregori and Department Director Richard N. Burton assured the members of the joint subcommittee that pollution prevention remains the number one goal of the DEQ, as provided in the agency's mission statement. Recently the Department has created the Office of Pollution Prevention, which will be on the same hierarchical level as the Office of Science and Innovative Programs. Prior to this, the Waste Reduction Assistance Program had been within the Office of Science and Innovative Programs. The Department could not give the members of the subcommittee any assurances regarding future levels of spending on pollution prevention, and noted that the Governor has asked agencies to prepare a series of budget cut proposals as a means of avoiding projected deficits.

C. Pollution Prevention in Other State Agencies

The Department of Environmental Quality is not the only agency of the Commonwealth involved in the implementation of pollution prevention. State agencies are subject to the same environmental regulations that apply to businesses in the private sector. Several state agencies use or generate hazardous or toxic substances in the course of their duties. Two of these state agencies, Correctional Enterprises and the Department of Transportation, addressed the joint subcommittee at its December 1993 meeting.

David S. Jones of Virginia Correctional Enterprises described six pollution prevention activities undertaken by his office, including (i) the conversion of a wet enamel paint process to a spray epoxy powder paint system, which eliminated xylene in the cleansing process, (ii) eliminating the clear coating process on license plates, which decreases both energy consumption and emissions of volatile organic compounds, and (iii) replacing laundry facilities

with a tunnel wash system, which reduces wastewater discharges by 70 percent.

Mr. Jones noted that his agency is driven by the same concerns facing private industry. The state must comply with applicable environmental regulations, and is looking for opportunities to avoid liability. The agency has used two private companies to conduct internal reviews of operations to find opportunities for improvement, and has taken advantage of training provided by DEQ.

The Virginia Department of Transportation is also implementing pollution prevention opportunities in several facets of its operations. Boyd Cassell of VDOT reported that a computerized system allows more precise application of deicing salt, pesticides and herbicides along highways, which both saves money and reduces runoff of excess materials. VDOT has also stopped using lead-based paint on steel structures. A new process reduces the amount of waste produced by 80 percent, and the waste that is generated is less likely to be classified as a hazardous waste. In addition, the agency is switching its traffic marking paint system to water-based products, which eliminates the need for cleaning solvents such as methyl ethyl ketone.

D. Activities by Other Organizations

Efforts to increase the implementation of pollution prevention initiations are underway by numerous organizations. The joint subcommittee received reports by several of these groups on their source reduction efforts. The subcommittee sought to contribute to these efforts by providing a forum for progress reports and facilitating their coordination.

1. Center for Innovative Technology

Jack Heinemann of the Center for Innovative Technology (CIT) described the Center's efforts to encourage pollution prevention by industries in Virginia. The critical factor in any business decision to invest in pollution prevention will be economic. CIT, whose programs are market-driven, believes that it is in a position to address industries' concerns.

Of the 12 technology development centers developed by CIT at universities in the Commonwealth, five have applications related to pollution prevention. These include projects studying (i) ceramic-based engines generating reduced emissions of NOx, (ii) the use of magnetic bearings in engines that would not require lubricants, (iii) microcell technology that allows coal companies to convert waste into useful products, (iv) reducing the consumption of electricity by computers, and (v) mining landfills. CIT is also working with VMI Research Laboratories and the Department of

Environmental Quality on their video and manual project, with the City of Chesapeake on the development of a waste exchange, and with Old Dominion University faculty on less polluting paints and strippers for use in shipbuilding and repair.

CIT recognizes that increasing the availability of these technologies to small business is critical. The Environmentally Conscious Manufacturing (ECM) Program was developed to advance this goal. Wayne Hawkins, Director of CIT's Manufacturing Technology Program, noted that the ECM Program is modeled on the Manufacturing Action Program. Under the ECM Program, companies contract with CIT to have experts review an operation and look for opportunities for the economically sound implementation of pollution prevention opportunities. The cost to the companies is low, and the program is designed to minimize risks associated with the review of operations by outsiders. Over 100 projects have participated in the ECM Program. An ECM assessment would typically include a review of cleaning processes, process control, materials substitution, and waste stream flow analysis.

Mr. Heinemann concluded by suggesting several steps the General Assembly could take to encourage the use of technologies to prevent pollution. First, a 10-percent investment tax credit for capital improvements for pollution prevention should be studied. This would be of particular benefit for technologies mandated by the 1990 Amendments to the Clean Air Act. Second, the legislature should encourage capital investment opportunities for technology. Third, the Commonwealth should work to attract a federal facility dealing with pollution prevention technologies. Such facilities, located now in Cincinnati and in North Carolina, are a magnet for technological development. Finally, he urged that greater resources be allocated to CIT and state institutions of higher education in order to take advantage of the opportunities for pollution prevention.

2. Institute for Environmental Negotiation

The Institute for Environmental Negotiation at the University of Virginia is developing the Collaboration for Pollution Prevention and Toxics Reduction. Frank Dukes of the Institute described the Collaboration to the joint subcommittee at the December meeting. The Collaboration is an effort involving trade associations, agencies, non-profit organizations and citizens groups in an effort for industry-specific pollution prevention toxics reduction strategies. The Collaboration is seeking to develop policy recommendations, information sharing agreements, technical assistance programs, and other initiatives. The first step involves picking a target industry for analysis. The project is directing its efforts at small- and medium-sized companies that lack

the resources or incentives to adopt environmentally favorable production practices and product reformulations.

Initial funding for the first two stages of the project is provided by the Virginia Environmental Endowment. The Institute is collaborating on this project with the Management Institute for Environment and Business, based in Washington, D.C., and the University of Virginia's Darden School of Graduate Business. The first two phases of the Collaboration are scheduled for completion by the summer of 1994. The Institute is working closely with the DEQ's pollution prevention office on this program.

3. Institute for Cooperation in Environmental Management -- Virginia Chamber of Commerce

Timothy G. Hayes, Chairman of the Natural Resources Section of the Virginia Chamber of Commerce, and Richard L. Cook, President of the Institute for Cooperation in Environmental Management (ICEM) advised the joint subcommittee of a planned private, non-profit technical assistance program. The Chamber and ICEM have applied to EPA for a grant to establish the program, which will provide, at no cost to businesses, trained engineers who will consult with selected businesses to assist them in identifying and implementing pollution prevention opportunities. The contributing engineers will be retirees or other volunteers participating on a part-time basis. The engineers will attend a program at the University of Tennessee to prepare them for their tasks with funds from the grant.

Unfortunately, Mr. Cook advised the subcommittee that delays in the appointment of officials at the U.S. Environmental Protection Agency have contributed to delays in securing a federal grant to initiate an ICEM Program in Virginia. ICEM is managing a program in Pennsylvania and Delaware similar to that proposed for Virginia. Rather than relying on an EPA grant in these states, the programs are funded by a settlement involving Boeing Corporation. In these states, ICEM has five engineers providing on-site assistance to over 30 companies. ICEM's services are provided by retired engineers trained at the University of Tennessee's pollution prevention program. The engineers are paid $15 per hour for their services (though it may be lower in Virginia), and the cost for developing and implementing a plan for a facility was estimated at between $2,500 and $3,000. Most of the cost is for the engineers' time, and the overhead portion of the cost was said to be 10 percent or less.

Mr. Cook noted that his program is successful because it is sold as a free cost reduction program. Businesses are told that ICEM can help them cut costs and help the environment simultaneously. Most small businesses need direct, on-site assistance, and merely providing written manuals will not be

effective. Among larger corporations, ICEM personnel teach that pollution prevention should be part of the company's "quality philosophy." As companies strive to meet the ISO 9000 standard established for the European Community, they are finding that not making waste by-products is critical to higher quality.

Another element of ICEM's success is its status as a nonprofit entity. Businesses may be more willing to work with ICEM that with a governmental agency because they are not also responsible for reporting violations. However, if violations which pose an imminent danger are found, they must be reported as any citizen would be required to report them. One goal of the program is to teach companies how they can change methods of doing business in order to avoid environmental regulation.

Mr. Cook expressed optimism that EPA funding would be made available for an ICEM program in Virginia in early 1994. If the program is funded, it would focus on manufacturing companies and small quantity generators employing less than 100 employees. The program's goal for its first year is to select 12 to 15 small or medium-sized businesses around the state that are generating appreciable amounts of pollution but lack the resources to institute a reduction program. The Chamber's involvement will include providing office space, making information about the program available throughout the state, selecting businesses that would benefit from the program's services, and assisting ICEM secure a reliable funding source.

4. VMI-VMA-DEQ Outreach Program

VMI Research Laboratories, the Virginia Manufacturers Association, and the Department of Environmental Quality are developing an outreach program aimed at educating small and medium sized business of the advantages of pollution prevention. Ronald Erchul of VMI is coordinating the production of a videotape and a manual. DEQ has pledged one half of the cost of the project, which will be applied to the cost of the videotape. The videotape is scheduled to be premiered at VMI's Environment Virginia Symposium in early April 1994.

The joint subcommittee agreed at its November meeting to sign on as an endorser of this outreach project. The project was hailed as an example of productive public-private cooperation, and reflects the sentiment of the joint subcommittee that increasing education about pollution prevention's benefits will aid in overcoming institutional barriers to its implementation.

E. The Use of Innovative Technologies

The joint subcommittee heard repeatedly that preventing pollution may involve changing production methods, input substitution and product reformulation. Three Virginia entrepreneurs were invited to address the joint subcommittee to describe new products and procedures which, if embraced by the Commonwealth, would eliminate specific types of pollution at the source.

Mike Semones of Roanoke addressed the removal of lead-based paint from bridges. The traditional approach called for old paint to be removed by blasting. This technique can release dangerous amounts of lead into the atmosphere, and alternative abatement methods can be prohibitively expensive. Mr. Semones advocated the use of polymer coatings that can be sprayed on structures at the site to encapsulate the old lead-based paint. Advantages of this technology were alleged to include avoidance of solvent-based products, extended life of the infrastructure, greater worker safety, and elimination of liability for environmental clean-up costs.

Philip Joyce, Sr., of T. I. G., Inc. in Newport News described a destruction-distillation process designed to eliminate waste tires. Though this process is not pollution prevention in that it addresses a waste product after its generation, it does offer opportunities for cleaning up a potentially dangerous waste product. The process can reduce a ton of scrap tire feed stock into 500 pounds of carbon black, 65 gallons of light crude oil, 10,000 cubic feet of gas, and 200 pounds of steel. As the tires are not burned, there are no harmful emissions. Approximately 40 percent of the gas produced is used to run the process, and the balance of the products can be refined and resold.

Tony Gedeon of Blue River Enterprises in Fredericksburg, which specializes in paints, solvents and other products that are water-based and low in volatile organic compounds, addressed some of the difficulties faced by advocates of new, environmentally friendly technologies. People are concerned about embracing new technologies due to the costs of equipment and retraining personnel. These new technologies may be less expensive than currently used ones, but there is no readily available source of information. He contends that current state efforts to promote new technologies are inadequate. Further, government could take a greater role in using less toxic products. Unless procurement specifications call for new technologies, manufacturers may continue to use toxic materials rather than try new products that may not perform adequately. Mr. Gedeon suggested that the state's budget contain a line item for pollution prevention efforts. Finally, the Department of Environmental Quality should be encouraged to make its resources known to state agencies and architects, in order for the state to lead the conversion to environmentally benign products.

F. 1991 Toxic Release Inventory Data

The only existing objective measure of the success of pollution prevention efforts is the Toxic Release Inventory data submitted pursuant to the federal SARA Title III program. Data for 1991 was released by the DEQ in May 1993. In that year, 92,274,914 pounds of TRI chemicals were released into the environment in Virginia; 5,363,289 pounds of TRI chemicals were transferred off-site for treatment or disposal; and 35,442,125 pounds were transferred off-site for recycling or burning for energy recovery. The 1991 TRI data is included on Appendix 10.

The 97.6 million pounds of TRI chemicals released or transferred off-site for treatment or disposal in 1991 represented an eight percent decrease from 1990, and a 49-percent decrease from 1987, the first year of reporting. The DEQ report notes that while much of the decline is attributable to more accurate reporting, the 1991 source reduction and recycling data indicates that many facilities are making actual reductions. A comparison for the years 1987 through 1991 is attached as Appendix 11.

The Pollution Prevention Act of 1990 required that TRI reports for 1991 include for the first time information on off-site transfers which are recycled or used for energy recovery. This law also required facilities to include a Toxic Chemical Source Reduction and Recycling Report containing information on the amounts of toxic chemicals that are recycled, source reduction practices used with respect to toxic chemicals, and techniques used to identify source reduction opportunities. Nationally, 37 percent of facilities reported undertaking source reduction activities such as equipment modifications, reformulation of products, raw materials substitution, and improvements in operational activities. The 1991 TRI data for Virginia revealed that 35.5 percent of facilities required to file reports have undertaken source reduction efforts for one or more of the reported chemicals.

V. INCREASING THE AVAILABILITY OF EDUCATION AND ASSISTANCE

The third of the joint subcommittee's stated missions is identifying and evaluating methods for increasing the availability of pertinent education and technical assistance. Though it is stated as a separate charge, it overlaps with the missions of identifying and evaluating incentives, and assessing the current range of activities, relating to pollution prevention.

A. North Carolina's Pollution Prevention Program

During the joint subcommittee's review of technical assistance outreach efforts, Richard Cook of ICEM was asked whether the pollution prevention laws of any other states provided a good model for the Commonwealth. In response to his praise of North Carolina's program, the joint subcommittee examined that state's pollution prevention laws and their implementation.

North Carolina is credited with implementing the nation's first pollution prevention program in 1981. The program began as an initiative of the state's waste management agency, and pollution prevention legislation was not adopted until the passage of the Hazardous Waste Management Act of 1989. Provisions of the Act relating to pollution prevention include:

- Authorizing the Hazardous Waste Management Commission to establish a schedule of fees to encourage reductions in the volume or quantity and toxicity of hazardous waste. Section 130B-16 (c) provides that if revenues exceed all costs of the hazardous waste management program, the excess funds are to be appropriated to fund a portion of the Pollution Prevention Pays Program and other programs which foster multimedia waste prevention, reduction, reuse, and recycling. At present, there are no excess fees being generated to fund the pollution prevention program.

- Section 113-8.01, establishing the Pollution Prevention Pays Program, a nonregulatory technical assistance program. Its purpose "is to encourage voluntary waste and pollution reduction efforts through research and by providing information, technical assistance, and matching grants to businesses and industries interested in establishing or enhancing activities to prevent, reduce, or recycle waste." This provision codified the program that had been in existence since 1981.

- Section 130A-294 (k), requiring each operator of a hazardous waste treatment facility which treats waste generated on-site who is required to pay a fee to submit to the Department at the time such fees are due a written description of any program to minimize or reduce the volume and quantity or toxicity of such waste.

- Section 143-215.1(g), requiring a holder of a water discharge permit to submit to the Department a written description of his current and projected plans to reduce the discharge of waste and pollutants under such permit by source reduction or recycling. The description is to accompany the payment of the annual permit fee and any application for a new permit or modification to an existing permit.

- Section 143-215.108(c), requiring a holder of an air discharge permit to submit to the Department a written description of his current and projected plans to reduce the discharge of air contaminants under such permit by source reduction or recycling. The description is to accompany the payment of the annual permit fee and any application for a new permit or modification to an existing permit.

Though the Hazardous Waste Management Act requires holders of water and air discharge permits and hazardous waste generators to submit plans for reducing discharges to the Department, these requirements have not been implemented. Two reasons have been given for the delays in implementing these requirements. First, no funds have been appropriated for their implementation. Second, rules and guidelines elaborating on the general statutory requirements have not been promulgated. Consequently, the statutes have not been complied with by either the regulators or the regulated community.

North Carolina is studying the implementation of the planning statutes through a Pollution Prevention Advisory Council. The Council has held two meetings, and is scheduled to complete the study in October 1994. According to Sharon Johnson of the Office of Waste Reduction, the Council is interested in linking planning to incentives, such as allowing reduced fines if a plan is implemented as part of an enforcement action.

According to Ms. Johnson, the backbone of the North Carolina program is on-site technical assistance. Engineers (who are full-time state employees) will visit a facility and conduct a comprehensive waste survey, identify waste reduction options, and prepare a report detailing the reduction efforts. The program currently has six engineers on staff, and is expecting to add another next year.

The Program also coordinates a program using part-time retired engineers, funded by the Tennessee Valley Authority. The TVA program is available only in certain western counties.

Ms. Johnson expressed some reservations with the use of the part-time engineers. They are not always as familiar with the current complex environmental regulations as persons who work in the area full-time. The program is in the process of being revamped to require greater oversight by state engineers.

The North Carolina program is receiving a general fund appropriation of $607,000. In addition, it receives an EPA "Pollution Prevention Incentives

for States" grant enabling it to hire two full-time employees. The total staff of the Office of Waste Reduction consists of 29 persons; however, 17 of these persons work in the Solid Waste Reduction Program, which focuses on municipal solid waste.

The North Carolina Pollution Prevention Program administers a competitive grant program which offers matching grants of up to $15,000 to businesses, industries, and trade associations. Since 1985, the Program has funded over 96 projects, for a total combined (state and private money) investment of nearly $2 million.

Additional activities of the Office of Pollution Prevention include (i) responding to telephone inquiries and preparing facility- or waste-specific reports on waste reduction options; (ii) maintaining an information clearinghouse with over 4,500 references such as reports, fact sheets, national and international databases, and vendor information; (iii) offering outreach programs in the form of staff presentations to industries and organizations, training programs and workshops on implementing waste reduction programs and technologies; (iv) producing industry-specific and general program fact sheets, case summaries, and audio-visual materials; and (v) preparing a newsletter.

The North Carolina enabling legislation is not much different than that enacted by Senate Bill 650 in the 1993 Session of the General Assembly, if North Carolina's unimplemented plan reporting laws are discounted. North Carolina is grappling with many of the same issues that have faced the joint subcommittee, including methods of increasing technical assistance outreach, obtaining sufficient funding, and the propriety of facility planning.

Two features of the North Carolina Pollution Prevention Program were noted with approval by the joint subcommittee. First, the on-site technical assistance provided by the nonregulatory office has been praised as an effective way of having companies identify source reduction opportunities. Second, the North Carolina General Assembly has provided resources to allow the program to provide valuable assistance to companies. Until recently it received little state funding. Increases in general fund appropriations have permitted the on-site technical assistance program to expand, and have permitted limited funding of the challenge matching grants program.

B. State Agency Outreach Efforts

The DEQ's Waste Reduction Assistance Program has worked diligently to provide education and technical assistance for Virginians. Sharon Baxter, Manager of the Office of Pollution Prevention, informed the subcommittee

that the Program's efforts will be assisted by the EPA's award of a $311,600 grant to the Commonwealth. The money was awarded under the competitive Pollution Prevention Incentives for States program. Because it is a matching grant, the money to be provided by the EPA is $115,800; the balance is provided by the state. The money will be used over a two-year period to establish a statewide pollution prevention infrastructure at all levels of government and to fund multi-media pollution prevention outreach for Virginia industries via innovative communications techniques.

At the December meeting, Ms. Baxter presented a brief videotape on pollution prevention in the printing industry. Copies of the videotape have been sent to 148 printers with between 20 and 200 employees. The cost of the videotape, including an accompanying booklet and mailings, was approximately $15,000.

DEQ personnel have been working on educational enhancement opportunities. They have met with representatives from VMI, Virginia Tech, the University of Virginia, Old Dominion University, the Department of Economic Development, and the Center for Innovative Technology to discuss the establishment of a University Consortium. Richard Jenrucco of the University of Tennessee also participated in the meeting. With the EPA moving away from funding university centers, the DEQ is looking into alternative funding sources, including the Department of Energy's efficiency programs.

Finally, Ms. Baxter described outreach efforts of DEQ involving other state agencies. In September 1993, DEQ conducted two two-day workshops for the Department of Transportation and Correctional Enterprises. Personnel from these agencies were taught how to do environmental assessments and to identify pollution prevention opportunities.

VI. DELIBERATIONS OF THE JOINT SUBCOMMITTEE

Over the course of the joint subcommittee's second year, members voiced support for a variety of methods of enhancing pollution prevention in the Commonwealth. Several ideas were drafted in the form of legislation and presented at the group's December meeting. Others were submitted by interested groups prior to the January meeting. The joint subcommittee conducted a public hearing in conjunction with its final meeting. Following the public hearing, the members deliberated upon the proposals and reached a consensus regarding several actions to facilitate the implementation of pollution prevention.

A. Legislative Proposals Considered

Five legislative proposals were prepared by staff at the request of joint subcommittee members.

1. Establishing a Statewide Goal

A proposal originating with the Chesapeake Bay Foundation calls for the General Assembly to adopt the goal of reducing the amount of toxic or hazardous substances used, generated or released in the Commonwealth by 50 percent by January 1, 2000, when compared to amounts for 1993. Toxic or hazardous substances are defined as chemicals on the Toxic Chemical List established under the federal SARA Title III program and chemicals listed pursuant to the federal Superfund program. These substances are included on the toxic or hazardous substance list to be prepared by the administrative council on toxics use reduction pursuant to Section 9 of the Massachusetts Toxics Use Reduction Act (Acts 1989, 265, Sec. 3). Progress would be measured by using data already supplied by SARA Title III reports and information from permits.

The goal would be voluntary, and would serve as an objective against which progress could be measured. The 50 percent in five years reduction goal is identical to that established in 1993 by President Clinton for federal agencies. At least seven other states have adopted specific reduction goals. The goals range from 50 percent over five years (Washington) to 25 percent over five years, adjusted for economic growth (Mississippi), or 50 percent over 10 years (Massachusetts and New York). A copy of this proposal is attached as Appendix 12.

2. Pollution Prevention Implementation Within All State Agencies

The Chesapeake Bay Foundation also requested preparation of legislation requiring state agencies to implement pollution prevention initiatives. The legislation, a copy of which is attached as Appendix 13, requires all state agencies that use, generate, or release toxic or hazardous substances to review their programs and activities, and ascertain how reductions can be promoted and achieved. The agencies must then amend their programs and activities so as to reduce such substances in furtherance of the statewide reduction goal, discussed above.

The agencies are required to submit an agency pollution prevention plan, and to amend their specifications for materials and products purchased in order to eliminate or reduce the use of toxic or hazardous substances. This requirement would apply only where alternative materials or products are functionally equivalent, and comparable in cost, to materials or products

currently being procured. This legislative proposal is based on Section 9 of the Massachusetts Toxics Use Reduction Act (Acts 1989, 265, Sec. 3).

3. Procurement by State Agencies

At the joint subcommittee's November meeting, Senator Howell noted that the state could provide incentives for manufacturers of products that prevent pollution through the procurement process. At the December meeting, staff presented draft legislation establishing a procedure for a manufacturer, seller, or other person to petition the Division of General Services to include a less-pollution good or product in its procurement process. A less-pollution good or product is one which is functionally equivalent to good and products currently being purchased by the state, but which contains, emits, produces or generates less toxic or less hazardous substances. A copy of the legislation is attached as Appendix 14.

The measure also provides that state agencies shall review and revise their procurement procedures and specifications to encourage the use of less-polluting goods and products. This legislation is parallel in many respects to § 11-41.01 of the Virginia Code, which was enacted in 1993 following the recommendations of the Joint Subcommittee on End Use Markets for Recycled Products. That measure addressed procurement of goods and products with recycled content. To the extent that source reduction and pollution prevention are preferable to recycling, this measure was intended to provide similar market incentives.

4. Pollution Prevention Planning by State Agencies

The Chesapeake Bay Foundation asked staff to prepare legislation requiring state agencies, departments, and institutions to prepare a facility plan. This requirement would apply to all state agencies using or generating a toxic or hazardous substance. DEQ will be required to develop guidelines for the facility plans within two years. The agencies will be required to complete the plans within two years following issuance of the criteria and procedures.

The agency facility plans will contain four things: (i) an evaluation of potential changes in processes and raw materials, (ii) five-year numerical reduction goals, (iii) options for reducing the use or generation of toxic or hazardous materials, and (iv) a description of options the agency will undertake in the following five years.

Agencies will be required to update their plans every five years. They will have to submit annual progress reports. An agency undertaking a major

state project for which an environmental impact statement is required will also have to submit a plan addressing the operation of the project.

DEQ will be responsible for reviewing the agency pollution prevention plans. If an agency fails to comply with the requirements of the law, DEQ will identify specific deficiencies. DEQ will also be required to prepare a biennial report covering release by state agencies. Many features of this proposal echo requirements imposed on federal agencies by President Clinton's Executive Order on pollution prevention. A copy of this proposal is attached as Appendix 15.

5. Pollution Prevention Within DEQ

As previously noted, the joint subcommittee dedicated a considerable portion of its time to assessing the emphasis on pollution prevention within DEQ. Several ideas relating to the role of pollution prevention in the agency's organization and functions were combined into one legislative proposal, a copy of which is attached as Appendix 16.

The first part of the bill would increase the role of pollution prevention in inspection and enforcement activities. DEQ will be required to promulgate regulations regarding inspections conducted under its air, water, and waste programs to ensure that inspections have a multi-media approach, that a team approach is used, and that duplication of inspection and enforcement efforts is minimized. With regard to enforcement actions, DEQ will require any person violating an environmental law or standard to develop a plan to reduce the use or generation of toxic or hazardous substances. The person would be required to implement the plan in order to achieve compliance with the law.

The two other provisions of this proposal were originally considered by the joint subcommittee in its first year, but were not adopted. The Chesapeake Bay Foundation requested that they be brought back for reconsideration. The first of the provisions amends existing § 10.1-1425.12 to add a list of the types of projects the DEQ's pollution prevention assistance program should encompass. The list includes establishing a clearinghouse of available information, conducting workshops and conferences to assist in transferring pertinent information, cooperating with university programs to develop pollution prevention curricula and training, providing on-site consultation and other technical assistance to waste generators, and researching and recommending incentive programs for innovative pollution prevention programs.

The final feature of this proposal mandates the establishment of an office of pollution prevention within DEQ. The head of the office would report

directly to the Director of the agency. The office's duties would include coordinating source reduction efforts, reviewing regulations for the impact on pollution prevention, establishing expedited permitting for process or equipment modifications involving pollution prevention, and actively publicizing the advantages of, and developments in, pollution prevention.

6. Proposed Regulatory Incentives

The Virginia Manufacturers Association submitted two proposals relating to regulatory incentives for pollution prevention. Copies of these proposals are attached as Appendix 17. Both proposals were initially submitted by the VMA for consideration by the joint subcommittee in 1992.

The first proposal calls for the abatement of up to 50 percent of civil charges assessed for violation of the air, water, and waste programs for expenditures made for authorized pollution projects. The civil charges, which are payable pursuant to consent decrees agreed to by the agency and the violator, are currently paid into the Virginia Environmental Emergency Response Fund. Under this proposal, one half of the civil charge could either be paid into a new Virginia Pollution Prevention Fund, or used to finance an authorized pollution prevention project. Money in the new Fund would be used to provide information and technical assistance to Virginia businesses.

The second proposal required environmental regulatory boards to liberally approve compliance alternatives that will result in the reduction or elimination of pollution if such alternatives afford an equal level of protection to the environment and public health as would be obtained by conventional technology. If the agency denies the use of an alternative strategy, the burden will be on the agency to justify the reasons for denial. The measure is advocated as providing authority for regulators to allow alternative approaches, thereby reducing their hesitancy to vary from traditional practices.

7. Governor's Awards Program

Though it does not require any legislative action, the Virginia Manufacturers Association submitted suggested revisions to the Governor's Environmental Excellence Awards Program. A copy of the VMA suggestions is attached as Appendix 18. Specific suggestions include (i) providing clear criteria for the award to applicants, (ii) ensuring more coverage of the awards ceremony by the news media, (iii) giving greater recognition to past award winners, and (iv) compiling and publishing all applications in order to increase exposure of the environmental efforts. This proposal was also submitted to the joint subcommittee in its initial year.

Patty Jackson of the Lower James River Association was the last person to speak at the public's hearing. She urged support for the pollution prevention planning proposal for companies filing TRI reports. At least 16 other states have adopted facility planning laws. Businesses are already required to prepare prevention plans in connection with the stormwater discharge permit process. Ms. Jackson also recommended adoption of a statewide goal for toxics reductions. Such a goal has already been endorsed with respect to nutrient pollution in the Chesapeake Bay, where a 40-percent reduction goal by the year 2000 was adopted for nitrogen and phosphorous. While she supports state agency involvement in pollution prevention, Ms. Jackson opposed the VMA proposal for regulatory incentives involving civil charges because it may reduce the money available for the Environmental Emergency Response Fund.

C. Recommendations of Joint Subcommittee

The members of the joint subcommittee acted on several of the proposals addressed during the public hearing.

1. Governor's Environmental Excellence Awards Program

The joint subcommittee unanimously endorsed the motion of Delegate Keating that a letter be sent to the Governor incorporating the suggestions submitted on behalf of the Virginia Manufacturers Association. Specific features to be stressed include giving recognition to past winners of the award, focusing on pollution prevention as a criterion in the selection of winners, and increasing the role of DEQ in selecting programs. The letter, signed by the seven legislative members of the joint subcommittee, was sent to Governor Allen on January 18. A copy of the letter is attached as Appendix 20.

2. Establishing a Statewide Goal

Ms. Herbert moved that the joint subcommittee endorse the proposal establishing a statewide goal of a 50 percent reduction in the use, generation and release of toxic and hazardous substances by 2000. The members agreed that it is beneficial for the state to define what it is attempting to accomplish, provided that no additional administrative burdens are created. The recommendation (Appendix 12) was unanimously endorsed. The definition of toxic or hazardous substances was adopted as part of this recommendation.

3. Continuation of Study

The members also unanimously approved a motion that the joint subcommittee be continued for an additional year. The terms of its mission

would not change. The chair noted that the continuation of the study may prove valuable in ascertaining the priorities and direction of the new administration with respect to pollution prevention. A copy of the resolution continuing the study, as introduced by Senator Houck, is attached as Appendix 21.

4. Reduction of Unnecessary Reporting Requirements

Delegate Crittenden suggested that the joint subcommittee urge the reduction of administrative requirements. Members agreed that any overlapping or inconsistent requirements should be eliminated. Two vehicles for expressing this goal were endorsed. First, the letter to the Governor addressing the awards program should reflect the subcommittee's concern about this issue. At the chair's suggestion, it was agreed that members who approved of the suggestion could sign the letter. The letter attached a Appendix 20 incorporates this recommendation. Members also agreed that the proposal could be included in the legislation proposal regarding DEQ inspection and enforcement activities.

5. Pollution Prevention Implementation within State Agencies, Procurement by State Agencies, and Pollution Prevention Planning by State Agencies

At the motion of Senator Quayle, the members ratified the proposals for increasing the implementation of pollution prevention within agencies of the Commonwealth. These proposals addressed the duties of all state agencies (Appendix 13), petitions for procurement by state agencies of less-polluting goods and products (Appendix 14), and the preparation of pollution prevention plans by state agencies (Appendix 15). The members adopted a suggestion by Ms. Coble to amend the proposals to exempt any agency from the requirements if it falls below a threshold level of the chemicals. DEQ will be directed to establish minimum threshold levels exempting users of such products as small amounts of household cleaners.

6. Inspections and Enforcement Actions by DEQ

The members adopted the portion of the proposal addressing the role of pollution prevention within DEQ pertaining to agency inspections and enforcement actions. (See Appendix 16). However, the proposal was amended to state that the Department may, rather than shall, require violators to develop a pollution prevention plan. The proposal was also revised to ensure that duplication in reporting requirements be eliminated. The measure was adopted with one negative vote from the chair, who expressed concern that it breaks with the study's charge to promote pollution prevention through education and assistance.

7. Pollution Prevention Assistance Program

The second portion of the proposal dealing with the role of pollution prevention within DEQ amends § 10.1-1425.12 to list activities that may be included in the assistance program, and addressing trade secret protection for recipients of on-site technical assistance. This measure is included in Appendix 16. Following the motion of Delegate Keating, the proposal was unanimously endorsed by the subcommittee.

8. Pollution Prevention Planning

Following a brief discussion, the members voted on a motion by Ms. Coble that the joint subcommittee recommend legislation in the form of the pollution prevention planning proposal of the Chesapeake Bay Foundation. The proposal is attached as Appendix 19. The motion failed on a 4-4 vote.

In the absence of motions that they be adopted, the remaining legislative proposals were not adopted. They included (i) the establishment of a pollution prevention office within DEQ (Appendix 16), (ii) the regulatory incentives proposal involving civil charges advocated by the VMA (Appendix 17), and the regulatory alternatives proposals, also advocated by the VMA (Appendix 17).

VII. CONCLUSION

The second year of the study of pollution prevention in the Commonwealth was informational and productive. The pollution prevention concept, which holds that it is more beneficial to both the quality of the environment and the profitability of business to avoid the generation of waste than it is to try to capture and clean up pollution, appears to be growing in acceptance. However, many opportunities to prevent pollution have not been implemented. The members of the joint subcommittee applaud efforts to remove all varieties of barriers to activities that reduce pollution at its sources.

The legislative recommendations of the joint subcommittee received a mixed reception in the 1994 Session of the General Assembly. Among the initiatives which passed both houses of the legislature were (i) Senate Joint Resolution 173 (Appendix 21), patroned by Senator Houck, which continues the subcommittee for another year; (ii) House Bill 1220 (Appendix 22), patroned by Delegate Keating, which incorporates the recommendation for state procurements of less-polluting goods and products; and (iii) House Bill 1251 (Appendix 23), patroned by Delegate Plum, which includes the

recommendations regarding the DEQ's pollution prevention program. Both of the bills that were passed by the 1994 Session were substantially amended by the legislature.

The other three bills introduced with the recommendation of the joint subcommittee were carried over to the 1995 Session by the House Committee on Conservation and Natural Resources. House Bill 1215, sponsored by Delegate Plum, established a stateside pollution prevention goal; a copy is attached as Appendix 24. House Bill 1216, also introduced by Delegate Plum, would have required pollution prevention planning by state agencies. A copy of this measure is attached as Appendix 25. Finally, House Bill 1221 would have required the implementation of pollution prevention initiatives by state agencies. A copy of the bill, introduced by Delegate Keating, is attached as Appendix 26.

The Joint Subcommittee wishes to express its appreciation for the materials and testimony submitted by the individuals and organizations who participated in the study.

Respectively submitted,

Senator R. Edward Houck, *Chairman*
Delegate Gladys B. Keating, *Vice Chairman*
Senator Janet D. Howell
Senator Frederick M. Quayle
Delegate Flora D. Crittenden
Delegate Phillip A. Hamilton
Delegate Kenneth R. Plum
Michael J. Campilongo, Esquire
Ms. Kimberly L. Coble
The Honorable Elizabeth H. Haskell
Georgia H. Herbert, Esquire
Mr. James C. McKean

1993 SESSION

LD9130685

SENATE JOINT RESOLUTION NO. 207

Offered January 18, 1993

Continuing the Joint Subcommittee Studying Pollution Prevention.

Patrons—Houck, Howell and Quayle; Delegates: Clement, Hamilton, Keating and Plum

Referred to the Committee on Rules

WHEREAS, Senate Joint Resolution 103 of 1992 established the Joint Subcommittee Studying Pollution Prevention; and

WHEREAS, the joint subcommittee has examined numerous issues and developed several recommendations; and

WHEREAS, due to the large quantity and complexity of the issues involved, the joint subcommittee has agreed that another year of study is necessary; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Joint Subcommittee Studying Pollution Prevention be continued. The membership of the joint subcommittee shall continue as established by Senate Joint Resolution 103 of the 1992 Session of the General Assembly. Vacancies shall be filled in the same manner as the original appointment. The charge of the joint subcommittee shall remain as set forth in Senate Joint Resolution 103.

The joint subcommittee shall complete its work in time to submit its findings and recommendations to the Governor and the 1994 Session of the General Assembly in accordance with the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

The indirect costs of this study are estimated to be $10,860; the direct cost of this study shall not exceed $8,640.

Implementation of this resolution is subject to subsequent approval and certification by the Joint Rules Committee. The Committee may withhold expenditures or delay the period for the conduct of the study.

Official Use By Clerks	
Agreed to By The Senate	**Agreed to By The House of Delegates**
without amendment ☐	without amendment ☐
with amendment ☐	with amendment ☐
substitute ☐	substitute ☐
substitute w/amdt ☐	substitute w/amdt ☐
Date: _____	Date: _____
Clerk of the Senate	Clerk of the House of Delegates

LD4303685

SENATE JOINT RESOLUTION NO. 103

AMENDMENT IN THE NATURE OF A SUBSTITUTE

(Proposed by the House Committee on Rules
on February 27, 1992)

(Patron Prior to Substitute—Senator Houck)

Establishing a joint subcommittee on pollution prevention.

WHEREAS, economic and ecological concerns are inherently interlocked; and

WHEREAS, in the long term, it is more economical to prevent pollution than to clean it up; and

WHEREAS, pollution prevention is avoiding or eliminating the generation of pollutants at the source; and

WHEREAS, current pollution control laws focus on managing the treatment and disposal or release of pollutants rather than on eliminating or preventing their generation; and

WHEREAS, pollution prevention activities can reduce the need for expensive treatment and disposal technologies, reduce production, compliance and liability costs, and increase efficiency and competitiveness; and

WHEREAS, pollution prevention can provide environmental benefits by addressing pollution from dispersed sources and eliminating efforts to control pollution by transferring pollutants from one environmental medium to another; and

WHEREAS, states and local governments can create incentives to make pollution prevention the preferred form of action for waste producers, including consumers; and

WHEREAS, incentives for pollution prevention need to take into account the economic structure and environmental circumstances unique to the Commonwealth; and

WHEREAS, opportunities for pollution prevention are often not realized by smaller businesses because of limited access to necessary financial and technical resources; and

WHEREAS, information, education, and technical assistance are needed to overcome institutional barriers to pollution prevention in both the public and private sectors; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That a joint subcommittee be hereby established to (i) identify and evaluate potential incentives for the adoption of pollution prevention initiatives, (ii) assess the current range of pollution prevention activities in the Commonwealth, and (iii) identify and evaluate methods for increasing the availability of pertinent education and technical assistance.

The joint subcommittee shall consist of 12 members as follows: three members of the Senate to be appointed by the Senate Committee on Privileges and Elections; four members of the House of Delegates to be appointed by the Speaker of the House; the Secretary of Natural Resources or her designee; the Secretary of Economic Development or his designee; and three citizen members with relevant experience to be appointed by the Governor: one representing business and industry, one representing environmental organizations and one representing local government.

All agencies and institutions of the Commonwealth shall provide assistance, upon request, as the joint subcommittee may deem appropriate.

The joint subcommittee shall complete its work in time to submit its findings and recommendations to the Governor and the 1993 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for processing legislative documents.

The indirect costs of this study are estimated to be $10,860; the direct costs of this study shall not exceed $8,640.

Implementation of this resolution is subject to subsequent approval and certification by the Joint Rules Committee. The Committee may withhold expenditures or delay the period for the conduct of the study.

Association of State and Territorial
ASTSWMO
Solid Waste Management Officials

444 North Capitol Street, N.W., Suite 388
Washington, D.C. 20001
tel: (202) 624-5828 fax: (202) 624-7875

White Paper on

Development of Pollution Prevention

Incentives/Disincentives

ISSUE

Governments' ability to influence industry decisionmaking via statutory, regulatory and economic incentives and disincentives should be explored in more depth.

DISCUSSION

Because of the variety of generators such as industrial and municipal, as well as the types and nature of waste streams produced, no single mechanism dealing with incentives or disincentives regarding pollution prevention programs is alone likely to be effective. A combination of mechanisms targeted to different groups is most likely to be effective. In general, pollution prevention programs are often targeted to either large or small generators. Programs targeted to large generators will have a significant impact on the overall efforts of pollution prevention but will affect fewer entities. There are a variety of techniques that can and are being used which include financial, regulatory, and statutory mechanisms.

Current pollution prevention programs are often directed at removing barriers and promoting pollution prevention as the preferred waste management practice. It is known that various pollution prevention options requiring process/equipment modification, raw material and/or product substitution, enhanced automation and control are cost intensive and difficult to implement in a short period of time. In addition, financial incentives such as investment tax credits, challenge grants, PAC deductions, accelerated depreciation of capital expenditures, and fees on products that do not meet prescribed standards, must be consistent with a State's overall tax policy.

The incentives and disincentives to pollution prevention programs which currently exist can be broadly classified into four categories: (1) organization or institutional; (2) regulatory; (3) economic or financial; and (4) technological. Often times economic or financial reasons are cited as principal reasons for failure to adopt effective pollution prevention strategies.

OPTIONS

The following mechanisms for the removal of barriers to pollution prevention should be considered.

1. Regulatory/Tax/Fiscal Approaches

- Accelerated depreciation for capital equipment purchases used for pollution prevention -- this front loads the expense
- Include equipment purchased for research and development for pollution prevention as eligible capital equipment for accelerated depreciation
- Allow deductions above 100% (e.g., 110%) of the interest for loans for purchasing pollution prevention equipment
- For companies with losses, allow carry forward or carry back of any pollution prevention deductions
- Relax any restrictions or limitations that may exist under the current tax structure on assignment across a company (such as across wholly owned subsidiaries) on the transfer of deductions and credits or any tax savings allowed for pollution prevention
- Allow greater than 100% of value deductions (e.g., 125%) for certain types of pollution prevention capital equipment purchased
- Allow a deduction, such as $/ton, for actual pollution prevention or reductions achieved
- Allow a credit, such as $/ton, for actual pollution prevention achieved (credits will probably be preferred for those with a gain)
- Credits and deductions can be offered on a sliding scale set by percentage of reduction of pollution, such as larger deductions and credits for proportionally larger reductions

2. Economic/Financial Mechanisms

- Grants, direct subsidiaries, challenge grants
- State-issued low or no interest loans and guarantees
- Bonds
- Tax incentives/credits
- Waste generation fees and taxes
- Waste treatment and disposal fees and taxes

3. Organizational/Institutional Mechanisms

- Technical assistance programs
- Information/education programs
- Awards programs such as Governor's awards
- Research and Development
- purchase/bidding preferences for government contracts

4. Regulatory Mechanisms

- Exemption from permitting/regulatory requirements for expedited permitting for pollution prevention related amendment/modifications
- Exemptions from permitting/regulatory requirements or modifications of permitting requirements for small producers of waste
- Restriction of waste methods
- Enforcement of regulations
- Clarification of regulations/applicability
- Clear reporting requirements
- Greater reliance on land disposal restrictions (if the waste is not produced, it does not have to be managed in accordance with strict State and federal LDRs)
- Mandate toxics reduction and/or facilities planning with strong enforcement provisions

Approved by the ASTSWMO Board of Directors on July 22, 1992.

OPTIONS

The following mechanisms for the removal of barriers to pollution prevention should be considered.

1. Regulatory/Tax/Fiscal Approaches

- Accelerated depreciation for capital equipment purchases used for pollution prevention -- this front loads the expense
- Include equipment purchased for research and development for pollution prevention as eligible capital equipment for accelerated depreciation
- Allow deductions above 100% (e.g., 110%) of the interest for loans for purchasing pollution prevention equipment
- For companies with losses, allow carry forward or carry back of any pollution prevention deductions
- Relax any restrictions or limitations that may exist under the current tax structure on assignment across a company (such as across wholly owned subsidiaries) on the transfer of deductions and credits or any tax savings allowed for pollution prevention
- Allow greater than 100% of value deductions (e.g., 125%) for certain types of pollution prevention capital equipment purchased
- Allow a deduction, such as $/ton, for actual pollution prevention or reductions achieved
- Allow a credit, such as $/ton, for actual pollution prevention achieved (credits will probably be preferred for those with a gain)
- Credits and deductions can be offered on a sliding scale set by percentage of reduction of pollution, such as larger deductions and credits for proportionally larger reductions

2. Economic/Financial Mechanisms

- Grants, direct subsidiaries, challenge grants
- State-issued low or no interest loans and guarantees
- Bonds
- Tax incentives/credits
- Waste generation fees and taxes
- Waste treatment and disposal fees and taxes

3. Organizational/Institutional Mechanisms

- Technical assistance programs
- Information/education programs
- Awards programs such as Governor's awards
- Research and Development
- purchase/bidding preferences for government contracts

4. Regulatory Mechanisms

- Exemption from permitting/regulatory requirements for expedited permitting for pollution prevention related amendment/modifications
- Exemptions from permitting/regulatory requirements or modifications of permitting requirements for small producers of waste
- Restriction of waste methods
- Enforcement of regulations
- Clarification of regulations/applicability
- Clear reporting requirements
- Greater reliance on land disposal restrictions (if the waste is not produced, it does not have to be managed in accordance with strict State and federal LDRs)
- Mandate toxics reduction and/or facilities planning with strong enforcement provisions

Approved by the ASTSWMO Board of Directors on July 22, 1992.

Appendix 3

POLLUTION PREVENTION STUDY(SJR 207)
September 13, 1993
TAX BREAKS AS AN INCENTIVE FOR POLLUTION PREVENTION ACTIVITIES
Remarks of Lana L.P. Murray, Virginia Department of Taxation

I. 1993 SB 570 and the existing tax exemption for certified pollution control equipment and facilities

Revenue Impact of SB 570

TAX determined that SB 570 would have a negative, but unascertainable impact on revenues. The current retail sales and use tax exemption under § 58.1-3660 applies to certain pollution control equipment and facilities as certified by the State Air Pollution Control Board or the State Water Control Board. Based on the 1991 Retail Sales and Use Tax Expenditure Study, it was determined that the current exemption resulted in $13.9 million of foregone revenue for fiscal year 1992.

Because the legislation does not contain a clear definition of exempt equipment and it also increases the number of agencies responsible for certifying projects, data is not available to determine what the fiscal impact of the bill might be. However, based on past experiences with the current exemption and since the bill substantially broadens the definition of certifiable equipment, the impact is certain to be significant.

Propriety of Expanding the Definition in § 58.1-3660 to Items Not Eligible for a Property Tax Exemption

Retail sale tax exemptions are not generally tied into local property tax exemptions. Thus, the fact that some items may not be eligible for a property tax exemption would not be critical to whether a retail sales and tax exemption should or should not apply.

A recent OAG opinion (Isle of Wight County, March 30, 1989) provides that local Commissioners of Revenue may go behind the certification approved by the certifying agencies to determine if a local property tax exemption applies. TAX has no current plans to adopt such a policy, nor does it believe that it can under the current statutory language.

Defining the Scope of the Exemption

Determining the true intent of the legislation is key to determining the scope of the exemption. It is unclear what will be included in pollution prevention and control; in its broadest meaning, any energy efficient or improved equipment or facility could fall within the scope of the exemption. Individual consumers could also be included. Also, if there are no requirements that such purchases be associated with a legislatively mandated/defined state-wide pollution prevention

target/program, any voluntary purchases would be eligible for the exemption.

Generally, under retail sales and use tax exemptions, purchases are limited to those items used directly in an exempt activity. If this is the intent here, then it should be so stated. Additionally, the certifying agencies - be it TAX and/or the Department of Environmental Quality or others - should be given the authority to provide regulations clearly delineating the scope of the exemption.

TAX's Experiences with the Current Certification Process/Status of Efforts to Revise the Applicable Regulations

The current exemption is limited to equipment and facilities that the certifying agencies require under their regulatory programs. Even so, the exemption has been applied broadly to include buildings and other structures whether or not used directly in pollution control. The statutory language only requires that the items be used primarily for the purpose of abating or preventing pollution.

TAX is bound by the certification done by Air and Water (now under DEQ). Thus, we depend on them to provide us with proper certification; as long as a taxpayer has received the proper certification, we allow the exemption. However, in completing some of our field audits, we have determined that we may need to open up a dialog with the certifying agencies to make sure all parties involved have a clear understanding of what should be included in the certification process so that the sales tax exemption is being applied correctly.

TAX is in the process of overhauling its retail sale and use tax regulations, including VR 630-10-84.2, Pollution Control Equipment and Facilities. We are currently working with DEQ to determine what steps can be taken to provide a clearer understanding of the current exemption and to develop a better working relationship between the two agencies. We will also be exploring ways the two agencies can work together to address the impact of the exemption on items incidental to actual pollution control and items used at a facility that play an active, but not necessarily primary role in the pollution control process.

II. Policy implications of various approaches - sales tax exemptions, income tax credits or deductions, or grants and loans

Generally

In general, direct appropriations - whether through direct loans, grants or other subsidies - are more beneficial than tax expenditures (such as an exemption, credit, deduction or exclusion) that are designed to encourage certain kinds or activities or to aid taxpayers in special circumstances. One of the major differences between a tax

expenditure and a direct expenditure is that the "costs" is measured by reduced tax collections, instead of by the level of expenditure authorized through the normal legislative appropriation process.

The reason direct appropriations are more beneficial is because tax credits, exemptions, etc. generally have the inherent problem of not efficiently targeting the benefits to the desired group, while direct appropriations provide more governmental control over the use of the funds and benefit specifically targeted groups. Also, unlike direct government budget expenditures which must be reappropriated, tax expenditures generally do not require periodic review and tend to remain in effect indefinitely, with only limited scrutiny by policymakers as to whether or not they are accomplishing a worthwhile public purpose in a cost-efficient manner.

Income Tax Credits and Deductions

Tax credits and deductions also pose problems because of the federal implications involved. The real after-tax benefit is less with an income tax credit because of federal tax issues. A state tax credit will increase a taxpayer's federal tax liability, thereby reducing the after-tax benefit of the credit. This results because state income taxes are a deduction on the federal return, and therefore a state credit reduces the federal deduction for state income tax and increases the federal tax liability.

Additionally, an income tax credit is claimed when taxpayers file their returns - which could be over a year after a decision to invest is made. Even then, since most credits are, and should be, nonrefundable, the credit provides a benefit only if the taxpayer earned a profit and there is a tax liability. If there is a loss, then either the credit provides no benefit or it must be carried forward to future years. Because the intended purpose of a credit is to influence the decision, the long delay between the decision and benefit reduces the impact that a potential credit may have on the decision.

Because Virginia is generally a conformity state - it uses the federal adjusted gross income as a starting point - any deductions or other provisions take the income tax structure further away from conformity. Thus, any proposal providing for a deduction from FAGI is not as desirous because it would lead to further deconformity.

Retail Sales and Use Tax

The sales tax is the 2nd largest source of General Fund revenue and a major source of revenue for Virginia's localities. The tax was originally structured as a broad based tax on purchases of tangible property and certain taxable services. It originally included 22 sales tax exemptions, which have since quintupled to over 118, and many of the original exemptions have been expanded, sometimes more than once, to exempt even more transactions or taxpayers - and these exemptions substantially reduce the revenues that could potentially

be generated by the tax. Only recently has more oversight and review been given to determining whether or not these exemptions are accomplishing in an effective and cost-efficient manner the purpose for which they were enacted.

The trend in most states in recent years is to try to expand the sales tax base as opposed to adding additional exemptions. While the sales tax is still a high revenue producer in Virginia, it is losing ground due in part to Virginia's economy becoming more service-oriented. This trend will be further accelerated to the extent more sales tax exemptions are enacted or current ones are broadened.

Noting this concern, the 1993 General Assembly enacted SJR 249, to have a joint subcommittee develop criteria for evaluating sales tax exemption requests. This subcommittee will be meeting this week.

###

Appendix 4

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL TAX CREDIT PROGRAM

Overview

Section I Introduction

The State of Oregon, through legislation originally adopted in 1967, seeks to encourage the construction, installation and use of facilities to prevent, control or reduce air, noise, water, or hazardous waste pollution or to utilize solid waste, hazardous wastes and used oil by providing tax relief for persons who do so. To obtain the allowed tax credit, the following steps must be taken:

A. Upon completion of facility construction, a "Pollution Control Facility Certificate" must be obtained from the Department of Environmental Quality. To receive a Certificate, an application for certification (Form DEQ/TC-2) must be submitted to the Department within two years of substantial completion of the facility. Any additional information requested by DEQ must be furnished by the applicant before an application is considered complete.

B. The "Pollution Control Facility Certificate" must be filed with the appropriate taxing agency (Oregon Department of Revenue or County Assessor) in accordance with their requirements.

The following information is intended to explain the various aspects of the available tax credit, identify the requirements, and prescribe the procedures for obtaining the certificate.

SECTION II Requirements for Certification

A pollution control facility may be any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person if the facility meets a principal purpose or sole purpose test.

A. Air, Noise, Water and Hazardous Waste Pollution Control Facilities

The tax credit law permits the Environmental quality Commission to certify a facility which has the principal or sole purpose of preventing, controlling or reducing air, noise, water or hazardous waste pollution. For each certificate issued, the Department is required to certify the actual cost of the facility and a percentage of the actual cost which can be properly allocated to the prevention, control or reduction of pollution. The Department will certify the percent allocable of facility costs in one percent increments from 1 to 100 percent. Credit will be provided for 50% of the certified costs.

B. Waste Utilization Facilities

To be certified as a waste utilization facility, you must produce as an end product a usable item of real economic value.

The tax credit law allows the Environmental Quality Commission to certify a facility which has the principal or sole purpose of utilizing what would otherwise be solid waste, hazardous waste or used oil. For facilities on which construction was completed after December 31, 1983, the actual cost of the facility and a percentage of the actual cost which can be allocated to the prevention, control or reduction f pollution must be certified. The percent allocable is certified in one percent increments from 1 to 100 percent.

C. Field Sanitation and Straw Utilization and Disposal Facilities

The following alternative methods of field sanitation and straw utilization and disposal are eligible for a tax credit.

1. Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning;

2. Propane flamers or mobile field sanitizers which are alternatives to open field burning and reduce air quality impacts; and

3. Drainage tile installations which will result in a reduction of grass seed acreage under production.

These facilities are certified pursuant to the same procedures, allocable costs and other requirements applicable to other air pollution control facilities.

Section III Types of Available Tax Credit

The law allows tax credit to be taken (a) as a credit against income or excise taxes or (b) as an exemption from ad valorem taxation on the pollution control facility. The ad valorem exemption is only available to corporations organized under ORS Chapter 61 or 62 or any predecessor to ORS Chapter 62 relating to incorporation of cooperative associations. No tax credit shall be allowed for any pollution control facility constructed or used by, or for the benefit of, any governmental or quasi-governmental body or public corporation or form thereof.

The alternate forms of tax credit are described in more detail as follows:

A. Credit Against Income or Excise Taxes

NOTE: Any questions regarding this alternative should be directed to the Oregon State Department of Revenue, Salem, Oregon.

1. The maximum credit allowed in any one tax year on a pollution control facility shall be the lesser of the liability of the taxpayer or one-half of the certified cost of the facility multiplied by the certified percentage allocable to pollution control, divided by the number of years of the facility's useful life remaining at the time the facility is certified but not less than one year or more than ten years.

Example: Certified facility cost: $1,000,000
Certified percent allocable: 50%
Useful life: 10 years
Tax Credit = $\frac{1/2 \times \$1,000,000 \times 0.50}{10} = \$25,000/\text{year}$

Any pollution control facility with a useful life of less than ten years is entitled to receive a tax credit prorated over the useful life of the facility. For example, a facility with 80 percent of the cost allocated to pollution control and a useful life of eight years would be eligible for a tax credit equal to 5 percent of the cost of the facility annually for 8 years.

2. A taxpayer who is allowed credit must be the owner, contract purchaser or lessee who conducts the trade or business that utilizes Oregon property requiring a pollution control facility to prevent or minimize pollution. The facility must be owned or leased during the tax year by the taxpayer claiming the credit.

3. The facility must have been in use and operation during the tax year for which credit is claimed.

4. Tax credit may be claimed by a taxpayer for:

   a. Air and water pollution control facilities.
   b. Solid waste recycling or material recovery facilities.
   c. Noise pollution control facilities.
   d. Hazardous wastes and used oil recycling and resource recovery facilities.
   e. Facilities for the reduction, elimination of, or redesign to treat hazardous waste.

5. Depreciation or amortization deductions may be taken in addition to tax credit.

6. Upon any sale, exchange or other disposition of the facility, a taxpayer shall notify the Department of Environmental Quality, who shall revoke the certification covering such facility as of the date of disposition. The new owner may apply for the remaining portion of the tax credit not taken by the previous owner.

7. Any credit allowable, but not used in any particular year, may be carried forward and used only in the next three (3) years.

8. The taxpayer's adjusted basis for determining gain or loss shall not be further decreased by any tax credits received in tax years beginning after January 1, 1977.

9. If the person receiving the certificate is a small business corporation as defined in Section 1371 of the Internal Revenue Code, each shareholder shall be entitled to take tax credit relief as provided in ORS 316.097, based on that shareholders pro rata share of the certified cost of the facility.

10. If the person receiving the certificate is a partnership, each partner shall be entitled to take tax credit relief as provided in ORS 316.097, based on that partner's pro rata share of the certified cost of the facility.

11. Tax credit can be provided for the tax payer's own cash investment in an eligible facility that is partially funded with federal dollars.

B. Exemption from Ad Valorem (Property) Taxation

NOTE: Any questions regarding this alternative should be directed to the County Assessor in the county where the facilities are located.

1. The ad valorem exemption is only available to non-profit corporations or cooperatives as discussed in ORS 307.405.

2. The pollution control facility must be erected, constructed or installed in connection with the trade or business conducted by the taxpayer on Oregon property owned or leased by the taxpayer. The taxpayer must be the owner or contract purchaser of the trade or business that utilizes Oregon property requiring a pollution control facility to prevent or minimize pollution, or a person who, as a lessee under a written lease or pursuant to a written agreement, conducts the trade or business that operates or utilizes such property and who by the terms of such lease or agreement is obliged to pay the ad valorem taxes on such property.

3. A certified facility is exempt from ad valorem taxation to the extent of the highest percentage figure certified by the Department of Environmental quality as the portion of the actual cost properly allocable to the prevention, control or reduction of pollution.

4. The certified facility is exempt from ad valorem taxation for a period of 10 consecutive years from the date of its first certification by the Department.

5. Federal grants or tax credits do not affect the ad valorem exemption.

6. Upon any sale, exchange or other disposition of the facility, a taxpayer shall notify the Department of Environmental Quality, who shall revoke the certification covering such facility as of the date of disposition. The new owner may apply for the remaining portion of the tax credit not taken by the previous owner.

SECTION IV Eligibility of Claimed Facilities for Certification

A claimed facility is eligible for certification as a pollution control facility if:

A. (1) It is an air or water pollution control facility; or

(2) It is a noise pollution control facility; or

(3) It is a solid waste recycling or material recovery facility; or

(4) It is a hazardous wastes or used oil recycling or resource recovery facility; or

(5) It is a facility designed to reduce or eliminate hazardous waste; and

B. It is necessary to satisfy the intents and purposes of ORS 468 and regulations adopted thereunder (air and water facilities), ORS 467 and regulations adopted thereunder (noise facilities), or ORS 459 and regulations adopted thereunder (solid waste, hazardous wastes and used oil facilities); and

C. It is in compliance with Department statutes, rules, Commission orders, or permit conditions; and

D. The facility meets the requirement of principal or sole purpose. The principal purpose of the facility is to comply with a requirement imposed by DEQ, EPA or a regional air pollution authority to prevent, control or reduce air, water or noise pollution or solid or hazardous waste or to recycle or provide for the appropriate disposal of used oil. The sole purpose of the facility is to prevent, control or reduce a substantial quantity of air, water or noise pollution or solid or hazardous waste or to recycle or provide for the appropriate disposal of used oil; and

E. It is not:

(1) an air conditioner (or other device which is installed or used in heating, cooling, filtering or otherwise treating or conditioning the air inside of buildings);

(2) a septic tank or other facilities for human waste;

(3) any property installed, constructed or used for the moving of sewage to the collecting facilities of a public or quasi-public sewerage system;

(4) any distinct portion or portions of a solid waste, hazardous waste or used oil facility which makes an insignificant contribution to the purpose of utilization of solid waste, hazardous wastes or used oil (the following specific items shall be among those portions considered for exclusion: office buildings and furnishings, parking lots and road improvements, landscaping, external lighting, company signs, and automobiles);

(5) an energy recovery facility;

(6) property or facilities installed, constructed or used for cleanup of emergency spills or unauthorized releases. This includes any facility installed, constructed or used for cleanup after an unauthorized release;

(7) asbestos abatement;

(8) a facility not directly related to the operation of the industry or enterprise seeking the tax credit;

(9) replacement or construction of all or part of a previously certified facility, unless:

(a) the replacement or reconstruction cost is greater than the like-for-like replacement cost due to a requirement imposed by DEQ, EPA or a regional air pollution authority, then the facility is only eligible for tax credit certification up to the amount equal to the difference between the cost of the new facility and the like-for-like replacement cost of the original facility; or

(b) the facility is replaced or reconstructed before the end of its useful life then the facility may be eligible for the remainder of the tax credit certified to the original facility.

If a tax credit has been received on an energy conservation facility from the Oregon Department of Energy, you are not eligible to apply for or receive a tax credit on the same facility as a pollution control facility under ORS 316.097 or 317.072.

SECTION V Application for Tax Credit Certification

Application for tax credit certification pursuant to ORS 468.165 shall be made within two years after completion of construction of the facility on DEQ Tax Credit form DEQ/TC-2-8/84. Application forms can be obtained from:

State of Oregon
Department of Environmental Quality
Management Services Division
811 SW 6th Avenue - 6th Floor
Portland, Oregon 97204

Department staff assistance or review is available prior to application submittal and can be provided by Department staff upon request, directed to the above address or at 229-6484.

SECTION VI References

The following references identify the applicable sections of Oregon Law. Original Law:

Chapter 592, Oregon Laws 1967

Amendments to Original Law:

Chapter 340, Oregon Laws 1969
Chapter 493, Section 19, Oregon Laws 1969
Chapter 678, Oregon Laws 1971
Chapter 402, Section 31, Oregon Laws 1973
Chapter 831, Oregon Laws 1973
Chapter 835, Oregon Laws 1973

Chapter 496, Oregon Laws 1975
Chapter 650, Oregon Laws 1975
Chapter 795, Oregon Laws 1977
Chapter 866, Section 10 and 11, Oregon Laws 1977
Chapter 802, Oregon Laws 1979
Chapter 531, Sections 5 and 6, Oregon Laws 1979
Chapter 512, Section 17, Oregon Laws 1979
Chapter 359, Oregon Laws 1981
Chapter 408, Oregon Laws 1981
Chapter 710, Oregon Laws 1981
Chapter 637, Oregon Laws 1983
Chapter 684, Oregon Laws 1985
Chapter 515, Oregon Laws 1987
Chapter 596, Oregon Laws 1987
Chapter 802, Oregon Laws 1989

Statutory Reference	Brief Summary
ORS 468.155 et seq.	Provisions of the above-referenced laws which relate to the certification of facilities by the Department of Environmental Quality.
ORS 307.405 ORS 307.420 ORS 307.430	Provisions of the above-referenced laws which relate to the ad valorem tax exemption alternative.
ORS 316.097	Provisions of the above-referenced laws which relate to the personal income tax alternative.
ORS 317.116	Provisions of the above-referenced laws which relate to the corporate excise tax credit alternative.
ORS 314.255	Provisions of the above-referenced laws which relate to collection of taxes after revocation of pollution control facility's certificate and exceptions to tax relief allowed for pollution control facility.

(6) property or facilities installed, constructed or used for cleanup of emergency spills or unauthorized releases. This includes any facility installed, constructed or used for cleanup after an unauthorized release;

(7) asbestos abatement;

(8) a facility not directly related to the operation of the industry or enterprise seeking the tax credit;

(9) replacement or construction of all or part of a previously certified facility, unless:

(a) the replacement or reconstruction cost is greater than the like-for-like replacement cost due to a requirement imposed by DEQ, EPA or a regional air pollution authority, then the facility is only eligible for tax credit certification up to the amount equal to the difference between the cost of the new facility and the like-for-like replacement cost of the original facility; or

(b) the facility is replaced or reconstructed before the end of its useful life then the facility may be eligible for the remainder of the tax credit certified to the original facility.

If a tax credit has been received on an energy conservation facility from the Oregon Department of Energy, you are not eligible to apply for or receive a tax credit on the same facility as a pollution control facility under ORS 316.097 or 317.072.

SECTION V Application for Tax Credit Certification

Application for tax credit certification pursuant to ORS 468.165 shall be made within two years after completion of construction of the facility on DEQ Tax Credit form DEQ/TC-2-8/84. Application forms can be obtained from:

State of Oregon
Department of Environmental Quality
Management Services Division
811 SW 6th Avenue - 6th Floor
Portland, Oregon 97204

Department staff assistance or review is available prior to application submittal and can be provided by Department staff upon request, directed to the above address or at 229-6484.

SECTION VI References

The following references identify the applicable sections of Oregon Law. Original Law:

Chapter 592, Oregon Laws 1967

Amendments to Original Law:

Chapter 340, Oregon Laws 1969
Chapter 493, Section 19, Oregon Laws 1969
Chapter 678, Oregon Laws 1971
Chapter 402, Section 31, Oregon Laws 1973
Chapter 831, Oregon Laws 1973
Chapter 835, Oregon Laws 1973

Chapter 496, Oregon Laws 1975
Chapter 650, Oregon Laws 1975
Chapter 795, Oregon Laws 1977
Chapter 866, Section 10 and 11, Oregon Laws 1977
Chapter 802, Oregon Laws 1979
Chapter 531, Sections 5 and 6, Oregon Laws 1979
Chapter 512, Section 17, Oregon Laws 1979
Chapter 359, Oregon Laws 1981
Chapter 408, Oregon Laws 1981
Chapter 710, Oregon Laws 1981
Chapter 637, Oregon Laws 1983
Chapter 684, Oregon Laws 1985
Chapter 515, Oregon Laws 1987
Chapter 596, Oregon Laws 1987
Chapter 802, Oregon Laws 1989

Statutory Reference	Brief Summary
ORS 468.155 et seq.	Provisions of the above-referenced laws which relate to the certification of facilities by the Department of Environmental Quality.
ORS 307.405 ORS 307.420 ORS 307.430	Provisions of the above-referenced laws which relate to the ad valorem tax exemption alternative.
ORS 316.097	Provisions of the above-referenced laws which relate to the personal income tax alternative.
ORS 317.116	Provisions of the above-referenced laws which relate to the corporate excise tax credit alternative.
ORS 314.255	Provisions of the above-referenced laws which relate to collection of taxes after revocation of pollution control facility's certificate and exceptions to tax relief allowed for pollution control facility.

Appendix 5

TAX RELIEF APPLICATION SUPPLEMENT

For property tax assessment, tax relief is allowed only for air pollution control equipment and structures, the primary purpose of which (or portion of which), is to reduce, control or eliminate air pollution (see Connecticut General Statute (C.G.S.) 12-81.52). For credit against state business tax, tax relief is allowed for the construction, rebuilding, acquisition, expansion and planning of air pollution control equipment. This would include labor and consulting costs as well as actual equipment costs (see C.G.S. 12-217c, -252a, -258b and -265b; all sections are essentially identical). For sales/use tax on personal property, tax relief is allowed for personal property that is incorporated into or used and consumed in the operation of air pollution control equipment. Examples of this would be lime for a scrubber, new bags for a baghouse, or other types of control equipment replacement parts (see C.G.S. 12-412.v).

APPLICABLE CONNECTICUT GENERAL STATUTES

PROPERTY TAX ASSESSMENT
C.G.S. 12-81.52

Structures and equipment for air pollution control

(a) Structures and equipment acquired by purchase or lease after July 1, 1967, for the primary purpose of reducing, controlling or eliminating air pollution, certified as approved for such purpose by the commissioner of environmental protection. Said commissioner may certify to a portion of structures and equipment so acquired to the extent that such portion shall have as its primary purpose the reduction, control or elimination of air pollution;

(b) Any person claiming the exemption provided under this subdivision for any assessment year shall, on or before the first day of November in such assessment year, file such certification by the commissioner of environmental protection, as required under subparagraph (a) of this subdivision, with the assessor or board of assessors in the town in which such structures and equipment are located. Failure to file such certification within the time limitation prescribed herein shall constitute a waiver of the right to such exemption for such assessment year. Such certification shall not be required for any assessment year following that for which initial certification is filed, provided if such structures and equipment are altered in any manner, such alteration shall be deemed a waiver of the right to such exemption until such certification, applicable with respect to the altered structures and equipment, is filed and the right to such exemption is established as required initially.

CREDIT AGAINST STATE BUSINESS TAX
C.G.S. 12-258b (C.G.S. 12-217c, -252a, and -265b are similar)

Tax credit for expenditures for air pollution abatement facilities

There shall be allowed as a credit against the tax imposed by this chapter in any income year an amount equal to five per cent of the amount of expenditures paid or incurred during such income year for the construction, rebuilding, acquisition or expansion of air pollution abatement facilities, including the planning thereof, approved as such by the commissioner of environmental protection, provided such construction, rebuilding, acquisition or expansion was commenced after January 1, 1967, and provided, if the amount of credit provided for herein exceeds the amount of precredit tax, any balance of the credit remaining may be taken in any of nine successive income years. Any taxpayer allowed the credit provided for herein under this chapter shall not be allowed such credit under any of chapters 208, 209, 210, 212 and 213.

SALES/USE TAX ON PERSONAL PROPERTY
C.G.S. 12-412.v

Personal property incorporated into or consumed in air pollution control facilities

Sales of and the storage, use or other consumption of tangible personal property or supplies acquired for incorporation into or used and consumed in the operation of facilities, the primary purpose of which is the reduction, control or elimination of air pollution, certified as approved for such purpose by the commissioner of environmental protection. Said commissioner may certify to a portion of such tangible personal property or supplies acquired for incorporation into such facilities to the extent that such portion shall have as its primary purpose the reduction, control or elimination of air pollution.

Federal Register
ol. 58, No. 150
Friday, August 6, 1993

Presidential Documents

Title 3—

The President

Executive Order 12856 of August 3, 1993

Federal Compliance With Right-to-Know Laws and Pollution Prevention Requirements

WHEREAS, the Emergency Planning and Community Right-to-Know Act of 1986 (42 U.S.C. 11001–11050) (EPCRA) established programs to provide the public with important information on the hazardous and toxic chemicals in their communities, and established emergency planning and notification requirements to protect the public in the event of a release of extremely hazardous substances;

WHEREAS, the Federal Government should be a good neighbor to local communities by becoming a leader in providing information to the public concerning toxic and hazardous chemicals and extremely hazardous substances at Federal facilities, and in planning for and preventing harm to the public through the planned or unplanned releases of chemicals;

WHEREAS, the Pollution Prevention Act of 1990 (42 U.S.C. 13101–13109) (PPA) established that it is the national policy of the United States that, whenever feasible, pollution should be prevented or reduced at the source; that pollution that cannot be prevented should be recycled in an environmentally safe manner; that pollution that cannot be prevented or recycled should be treated in an environmentally safe manner; and that disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner;

WHEREAS, the PPA required the Administrator of the Environmental Protection Agency (EPA) to promote source reduction practices in other agencies;

WHEREAS, the Federal Government should become a leader in the field of pollution prevention through the management of its facilities, its acquisition practices, and in supporting the development of innovative pollution prevention programs and technologies;

WHEREAS, the environmental, energy, and economic benefits of energy and water use reductions are very significant; the scope of innovative pollution prevention programs must be broad to adequately address the highest-risk environmental problems and to take full advantage of technological opportunities in sectors other than industrial manufacturing; the Energy Policy Act of 1992 (Public Law 102–486 of October 24, 1992) requires the Secretary of Energy to work with other Federal agencies to significantly reduce the use of energy and reduce the related environmental impacts by promoting use of energy efficiency and renewable energy technologies; and

WHEREAS, as the largest single consumer in the Nation, the Federal Government has the opportunity to realize significant economic as well as environmental benefits of pollution prevention;

AND IN ORDER TO:

Ensure that all Federal agencies conduct their facility management and acquisition activities so that, to the maximum extent practicable, the quantity of toxic chemicals entering any wastestream, including any releases to the environment, is reduced as expeditiously as possible through source reduction; that waste that is generated is recycled to the maximum extent practicable; and that any wastes remaining are stored, treated or disposed of in a manner protective of public health and the environment;

Require Federal agencies to report in a public manner toxic chemicals entering any wastestream from their facilities, including any releases to the environment, and to improve local emergency planning, response, and accident notification; and

Help encourage markets for clean technologies and safe alternatives to extremely hazardous substances or toxic chemicals through revisions to specifications and standards, the acquisition and procurement process, and the testing of innovative pollution prevention technologies at Federal facilities or in acquisitions;

NOW THEREFORE, by the authority vested in me as President by the Constitution and the laws of the United States of America, including the EPCRA, the PPA, and section 301 of title 5, United States Code, it is hereby ordered as follows:

Section 1. *Applicability.*

1–101. As delineated below, the head of each Federal agency is responsible for ensuring that all necessary actions are taken for the prevention of pollution with respect to that agency's activities and facilities, and for ensuring that agency's compliance with pollution prevention and emergency planning and community right-to-know provisions established pursuant to all implementing regulations issued pursuant to EPCRA and PPA.

1–102. Except as otherwise noted, this order is applicable to all Federal agencies that either own or operate a "facility" as that term is defined in section 329(4) of EPCRA, if such facility meets the threshold requirements set forth in EPCRA for compliance as modified by section 3–304(b) of this order ("covered facilities"). Except as provided in section 1–103 and section 1–104 below, each Federal agency must apply all of the provisions of this order to each of its covered facilities, including those facilities which are subject, independent of this order, to the provisions of EPCRA and PPA (*e.g.*, certain Government-owned/contractor-operated facilities (GOCO's), for chemicals meeting EPCRA thresholds). This order does not apply to Federal agency facilities outside the customs territory of the United States, such as United States diplomatic and consular missions abroad.

1–103. Nothing in this order alters the obligations which GOCO's and Government corporation facilities have under EPCRA and PPA independent of this order or subjects such facilities to EPCRA or PPA if they are otherwise excluded. However, consistent with section 1–104 below, each Federal agency shall include the releases and transfers from all such facilities when meeting all of the Federal agency's responsibilities under this order.

1–104. To facilitate compliance with this order, each Federal agency shall provide, in all future contracts between the agency and its relevant contractors, for the contractor to supply to the Federal agency all information the Federal agency deems necessary for it to comply with this order. In addition, to the extent that compliance with this order is made more difficult due to lack of information from existing contractors, Federal agencies shall take practical steps to obtain the information needed to comply with this order from such contractors.

Sec. 2–2. *Definitions.*

2–201. All definitions found in EPCRA and PPA and implementing regulations are incorporated in this order by reference, with the following exception: for the purposes of this order, the term "person", as defined in section 329(7) of EPCRA, also includes Federal agencies.

2–202. *Federal agency* means an Executive agency, as defined in 5 U.S.C. 105. For the purpose of this order, military departments, as defined in 5 U.S.C. 102, are covered under the auspices of the Department of Defense.

2–203. *Pollution Prevention* means "source reduction," as defined in the PPA, and other practices that reduce or eliminate the creation of pollutants through: (a) Increased efficiency in the use of raw materials, energy, water, or other resources; or (b) protection of natural resources by conservation.

2–204. *GOCO* means a Government-owned/contractor-operated facility which is owned by the Federal Government but all or portions of which are operated by private contractors.

2–205. *Administrator* means the Administrator of the EPA.

2–206. *Toxic Chemical* means a substance on the list described in section 313(c) of EPCRA.

2–207. *Toxic Pollutants.* For the purposes of section 3–302(a) of this order, the term "toxic pollutants" shall include, but is not necessarily limited to, those chemicals at a Federal facility subject to the provisions of section 313 of EPCRA as of December 1, 1993. Federal agencies also may choose to include releases and transfers of other chemicals, such as "extremely hazardous chemicals" as defined in section 329(3) of EPCRA, hazardous wastes as defined under the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6901–6986) (RCRA), or hazardous air pollutants under the Clean Air Act Amendments (42 U.S.C. 7403–7626); however, for the purposes of establishing the agency's baseline under 3–302(c), such "other chemicals" are in addition to (not instead of) the section 313 chemicals. The term "toxic pollutants" does not include hazardous waste subject to remedial action generated prior to the date of this order.

Sec. 3–3. *Implementation.*

3–301. *Federal Agency Strategy.* Within 12 months of the date of this order, the head of each Federal agency must develop a written pollution prevention strategy to achieve the requirements specified in sections 3–302 through 3–305 of this order for that agency. A copy thereof shall be provided to the Administrator. Federal agencies are encouraged to involve the public in developing the required strategies under this order and in monitoring their subsequent progress in meeting the requirements of this order. The strategy shall include, but shall not be limited to, the following elements:

(a) A pollution prevention policy statement, developed by each Federal agency, designating principal responsibilities for development, implementation, and evaluation of the strategy. The statement shall reflect the Federal agency's commitment to incorporate pollution prevention through source reduction in facility management and acquisition, and it shall identify an individual responsible for coordinating the Federal agency's efforts in this area.

(b) A commitment to utilize pollution prevention through source reduction, where practicable, as the primary means of achieving and maintaining compliance with all applicable Federal, State, and local environmental requirements.

3–302. *Toxic Chemical Reduction Goals.* (a) The head of each Federal agency subject to this order shall ensure that the agency develops voluntary goals to reduce the agency's total releases of toxic chemicals to the environment and off-site transfers of such toxic chemicals for treatment and disposal from facilities covered by this order by 50 percent by December 31, 1999. To the maximum extent practicable, such reductions shall be achieved by implementation of source reduction practices.

(b) The baseline for measuring reductions for purposes of achieving the 50 percent reduction goal for each Federal agency shall be the first year in which releases of toxic chemicals to the environment and off-site transfers of such chemicals for treatment and disposal are publicly reported. The baseline amount as to which the 50 percent reduction goal applies shall be the aggregate amount of toxic chemicals reported in the baseline year for all of that Federal agency's facilities meeting the threshold applicability requirements set forth in section 1–102 of this order. In no event shall the baseline be later than the 1994 reporting year.

(c) Alternatively, a Federal agency may choose to achieve a 50 percent reduction goal for toxic pollutants. In such event, the Federal agency shall delineate the scope of its reduction program in the written pollution prevention strategy that is required by section 3–301 of this order. The baseline

for measuring reductions for purposes of achieving the 50 percent reduction requirement for each Federal agency shall be the first year in which releases of toxic pollutants to the environment and off-site transfers of such chemicals for treatment and disposal are publicly reported for each of that Federal agency's facilities encompassed by section 3–301. In no event shall the baseline year be later than the 1994 reporting year. The baseline amount as to which the 50 percent reduction goal applies shall be the aggregate amount of toxic pollutants reported by the agency in the baseline year. For any toxic pollutants included by the agency in determining its baseline under this section, in addition to toxic chemicals under EPCRA, the agency shall report on such toxic pollutants annually under the provisions of section 3–304 of this order, if practicable, or through an agency report that is made available to the public.

(d) The head of each Federal agency shall ensure that each of its covered facilities develops a written pollution prevention plan no later than the end of 1995, which sets forth the facility's contribution to the goal established in section 3–302(a) of this order. Federal agencies shall conduct assessments of their facilities as necessary to ensure development of such plans and of the facilities' pollution prevention programs.

3–303. *Acquisition and Procurement Goals.* (a) Each Federal agency shall establish a plan and goals for eliminating or reducing the unnecessary acquisition by that agency of products containing extremely hazardous substances or toxic chemicals. Similarly, each Federal agency shall establish a plan and goal for voluntarily reducing its own manufacturing, processing, and use of extremely hazardous substances and toxic chemicals. Priorities shall be developed by Federal agencies, in coordination with EPA, for implementing this section.

(b) Within 24 months of the date of this order, the Department of Defense (DOD) and the General Services Administration (GSA), and other agencies, as appropriate, shall review their agency's standardized documents, including specifications and standards, and identify opportunities to eliminate or reduce the use by their agency of extremely hazardous substances and toxic chemicals, consistent with the safety and reliability requirements of their agency mission. The EPA shall assist agencies in meeting the requirements of this section, including identifying substitutes and setting priorities for these reviews. By 1999, DOD, GSA and other affected agencies shall make all appropriate revisions to these specifications and standards.

(c) Any revisions to the Federal Acquisition Regulation (FAR) necessary to implement this order shall be made within 24 months of the date of this order.

(d) Federal agencies are encouraged to develop and test innovative pollution prevention technologies at their facilities in order to encourage the development of strong markets for such technologies. Partnerships should be encouraged between industry, Federal agencies, Government laboratories, academia, and others to assess and deploy innovative environmental technologies for domestic use and for markets abroad.

3–304. *Toxics Release Inventory/Pollution Prevention Act Reporting.* (a) The head of each Federal agency shall comply with the provisions set forth in section 313 of EPCRA, section 6607 of PPA, all implementing regulations, and future amendments to these authorities, in light of applicable guidance as provided by EPA.

(b) The head of each Federal agency shall comply with these provisions without regard to the Standard Industrial Classification (SIC) delineations that apply to the Federal agency's facilities, and such reports shall be for all releases, transfers, and wastes at such Federal agency's facility without regard to the SIC code of the activity leading to the release, transfer, or waste. All other existing statutory or regulatory limitations or exemptions on the application of EPCRA section 313 shall apply to the reporting requirements set forth in section 3–304(a) of this order.

(c) The first year of compliance shall be no later than for the 1994 calendar year, with reports due on or before July 1, 1995.

3–305. *Emergency Planning and Community Right-to-Know Reporting Responsibilities.* The head of each Federal agency shall comply with the provisions set forth in sections 301 through 312 of EPCRA, all implementing regulations, and future amendments to these authorities, in light of any applicable guidance as provided by EPA. Effective dates for compliance shall be: (a) With respect to the provisions of section 302 of EPCRA, emergency planning notification shall be made no later than 7 months after the date of this order.

(b) With respect to the provisions of section 303 of EPCRA, all information necessary for the applicable Local Emergency Planning Committee (LEPC's) to prepare or revise local Emergency Response Plans shall be provided no later than 1 year after the date of this order.

(c) To the extent that a facility is required to maintain Material Safety Data Sheets under any provisions of law or Executive order, information required under section 311 of EPCRA shall be submitted no later than 1 year after the date of this order, and the first year of compliance with section 312 shall be no later than the 1994 calendar year, with reports due on or before March 1, 1995.

(d) The provisions of section 304 of EPCRA shall be effective beginning January 1, 1994.

(e) These compliance dates are not intended to delay implementation of earlier timetables already agreed to by Federal agencies and are inapplicable to the extent they interfere with those timetables.

Sec. 4–4. *Agency Coordination.*

4–401. By February 1, 1994, the Administrator shall convene an Interagency Task Force composed of the Administrator, the Secretaries of Commerce, Defense, and Energy, the Administrator of General Services, the Administrator of the Office of Procurement Policy in the Office of Management and Budget, and such other agency officials as deemed appropriate based upon lists of potential participants submitted to the Administrator pursuant to this section by the agency head. Each agency head may designate other senior agency officials to act in his/her stead, where appropriate. The Task Force will assist the agency heads in the implementation of the activities required under this order.

4–402. Federal agencies subject to the requirements of this order shall submit annual progress reports to the Administrator beginning on October 1, 1995. These reports shall include a description of the progress that the agency has made in complying with all aspects of this order, including the pollution reductions requirements. This reporting requirement shall expire after the report due on October 1, 2001.

4–403. *Technical Advice.* Upon request and to the extent practicable, the Administrator shall provide technical advice and assistance to Federal agencies in order to foster full compliance with this order. In addition, to the extent practicable, all Federal agencies subject to this order shall provide technical assistance, if requested, to LEPC's in their development of emergency response plans and in fulfillment of their community right-to-know and risk reduction responsibilities.

4–404. Federal agencies shall place high priority on obtaining funding and resources needed for implementing all aspects of this order, including the pollution prevention strategies, plans, and assessments required by this order, by identifying, requesting, and allocating funds through line-item or direct funding requests. Federal agencies shall make such requests as required in the Federal Agency Pollution Prevention and Abatement Planning Process and through agency budget requests as outlined in Office of Management and Budget (OMB) Circulars A–106 and A–11, respectively. Federal agencies should apply, to the maximum extent practicable, a life cycle analysis and

total cost accounting principles to all projects needed to meet the requirements of this order.

4–405. *Federal Government Environmental Challenge Program.* The Administrator shall establish a "Federal Government Environmental Challenge Program" to recognize outstanding environmental management performance in Federal agencies and facilities. The program shall consist of two components that challenge Federal agencies: (a) to agree to a code of environmental principles to be developed by EPA, in cooperation with other agencies, that emphasizes pollution prevention, sustainable development and state-of-the-art environmental management programs, and (b) to submit applications to EPA for individual Federal agency facilities for recognition as "Model Installations." The program shall also include a means for recognizing individual Federal employees who demonstrate outstanding leadership in pollution prevention.

Sec. 5–5. *Compliance.*

5–501. By December 31, 1993, the head of each Federal agency shall provide the Administrator with a preliminary list of facilities that potentially meet the requirements for reporting under the threshold provisions of EPCRA, PPA, and this order.

5–502. The head of each Federal agency is responsible for ensuring that such agency take all necessary actions to prevent pollution in accordance with this order, and for that agency's compliance with the provisions of EPCRA and PPA. Compliance with EPCRA and PPA means compliance with the same substantive, procedural, and other statutory and regulatory requirements that would apply to a private person. Nothing in this order shall be construed as making the provisions of sections 325 and 326 of EPCRA applicable to any Federal agency or facility, except to the extent that such Federal agency or facility would independently be subject to such provisions. EPA shall consult with Federal agencies, if requested, to determine the applicability of this order to particular agency facilities.

5–503. Each Federal agency subject to this order shall conduct internal reviews and audits, and take such other steps, as may be necessary to monitor compliance with sections 3–304 and 3–305 of this order.

5–504. The Administrator, in consultation with the heads of Federal agencies may conduct such reviews and inspections as may be necessary to monitor compliance with sections 3–304 and 3–305 of this order. Except as excluded under section 6–601 of this order, all Federal agencies are encouraged to cooperate fully with the efforts of the Administrator to ensure compliance with sections 3–304 and 3–305 of this order.

5–505. Federal agencies are further encouraged to comply with all state and local right-to-know and pollution prevention requirements to the extent that compliance with such laws and requirements is not otherwise already mandated.

5–506. Whenever the Administrator notifies a Federal agency that it is not in compliance with an applicable provision of this order, the Federal agency shall achieve compliance as promptly as is practicable.

5–507. The EPA shall report annually to the President on Federal agency compliance with the provisions of section 3–304 of this order.

5–508. To the extent permitted by law and unless such documentation is withheld pursuant to section 6–601 of this order, the public shall be afforded ready access to all strategies, plans, and reports required to be prepared by Federal agencies under this order by the agency preparing the strategy, plan, or report. When the reports are submitted to EPA, EPA shall compile the strategies, plans, and reports and make them publicly available as well. Federal agencies are encouraged to provide such strategies, plans, and reports to the State and local authorities where their facilities are located for an additional point of access to the public.

Sec. 6–6. *Exemption.*

6–601. In the interest of national security, the head of a Federal agency may request from the President an exemption from complying with the provisions of any or all aspects of this order for particular Federal agency facilities, provided that the procedures set forth in section 120(j)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. 9620(j)(1)), are followed. To the maximum extent practicable, and without compromising national security, all Federal agencies shall strive to comply with the purposes, goals, and implementation steps set forth in this order.

Sec. 7–7. *General Provisions.*

7–701. Nothing in this order shall create any right or benefit, substantive or procedural, enforceable by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.

William J. Clinton

THE WHITE HOUSE,
August 3, 1993.

[FR Doc. 93–19069
Filed 8–4–93; 4:37 pm]
Billing code 3195–01–P

EPA

POLLUTION PREVENTION POLICY STATEMENT

New Directions For Environmental Protection

1. Pollution Prevention: The New Environmental Ethic

The Pollution Prevention Act establishes a bold national objective for environmental protection: "[T]hat pollution should be prevented or reduced at the source whenever feasible." This policy statement offers my thoughts on how we can achieve that goal by making pollution prevention the guiding principle for all our programs at the Environmental Protection Agency.

We have already taken concrete actions that reflect the Clinton-Gore Administration's commitment to environmental solutions that reduce pollution at its source. For example:

- The Administration's budget request for the 1994 fiscal year includes a $33 million increase in spending for pollution prevention programs at EPA;

- On Earth Day, the President announced his commitment to an Executive Order establishing voluntary source reduction goals for procurement, and requiring federal agencies to comply with Right-to-Know public reporting requirements for toxic chemical wastes;

- On May 25, I released new Pollution Prevention Act data on the type and amount of toxic chemicals generated as waste, and announced my intention to expand Right-to-Know to include different chemicals and sources of pollution.

We can take pride in each of these accomplishments, but we must go further. We must build pollution prevention into the very framework of our mission to protect human health and the environment.

The new focus on pollution prevention will require a significant change in the way EPA carries out its responsibilities and allocates resources. The discussion below explains the multiple dimensions of EPA's investment in pollution prevention, and establishes basic principles to guide programs and regions toward our goal of integrating prevention into the Agency's "corporate culture."

This policy statement is only a starting point: if we are to succeed, we must continually renew our commitment by questioning established practices, working cooperatively across program and agency boundaries, and not hesitating to acknowledge shortcomings as well as success stories. I know I can count on your support as we work together to chart a new course for environmental protection.

2. Why Pollution Prevention?

When EPA was created in the early 1970's, our work had to focus first on controlling and cleaning up the most immediate problems. Those efforts have yielded major reductions in pollution in which we should all take pride. Over time, however, we have learned that traditional "end-of-pipe" approaches not only can be expensive and less than fully effective, but sometimes transfer pollution from one medium to another. Additional improvements to environmental quality will require us to move "upstream" to prevent pollution from occurring in the first place.

Preventing pollution also offers important economic benefits, as pollution never created avoids the need for expensive investments in waste management or cleanup. Pollution prevention has the exciting potential for both protecting the environment and strengthening economic growth through more efficient manufacturing and raw material use.

3. Summary Of Objectives

Pollution prevention is influenced by a number of factors, including EPA regulations and state programs, collaborative efforts that offer recognition and technical assistance, public data, the availability of clean technologies, and the practices and policies of large public agencies. To be effective, our pollution prevention program must establish the following objectives for each of these areas:

- Regulations and Compliance: The mainstream

activities at EPA, such as regulatory development, permitting, inspections, and enforcement, must reflect our commitment to reduce pollution at the source, and minimize the cross-media transfer of waste.

♦ State and Local Partnerships: Increasingly, state and local agencies are the "face of government" for the general public. We will strengthen the national network of state and local prevention programs, and seek to integrate prevention into state and local regulatory, permitting, and inspection programs supported with federal funds.

♦ Private Partnerships: We will identify and pioneer new cooperative efforts that emphasize multi-media prevention strategies, reinforce the mutual goals of economic and environmental well-being, and represent new models for government/private sector interaction.

♦ Federal Partnerships: We must work closely with our counterparts in other agencies to ensure that pollution prevention guides our management and procurement decisions, and to pursue opportunities for reducing waste at the source in the non-industrial sector.

♦ Public Information/The Right-to-Know: We will collect and share useful information that helps identify pollution prevention opportunities, measure progress, and recognize success.

♦ Technological Innovation: We will try to meet high priority needs for new pollution prevention technologies that increase competitiveness and enhance environmental stewardship, through partnerships with other federal agencies, universities, states, and the private sector.

♦ New Legislation: Where justified, we must not hesitate to seek changes in federal environmental law that will encourage investment in source reduction.

4. Definition

EPA has defined pollution prevention as "source reduction" as that term is explained under the Pollution Prevention Act, as well as protecting natural resources through conservation or increased efficiency in the use of energy, water, or other materials. EPA staff should continue to use this definition, as elaborated in the Agency guidance issued in May of 1992.

The guidance makes clear that pollution prevention is not the only strategy for reducing risk but is the preferred one. Environmentally sound recycling shares many of the advantages of prevention – it can reduce the need for treatment or disposal, and conserve energy and natural resources. Where prevention or recycling are not feasible, treatment followed by safe disposal as a last resort will play an important role in achieving environmental goals. In all cases, we must be guided by applicable statutory requirements.

5. Regulations And Compliance

Our first obligation at EPA is to fulfill the statutory responsibilities we have been given by Congress. That generally means developing environmental standards through regulation, and ensuring compliance through a system of permits, inspections, and enforcement actions. I firmly believe that strong environmental requirements, if designed to encourage cost-effective compliance strategies from industry, can promote pollution prevention and improve the competitiveness of American industry.

We can take a number of actions to realize this potential. First, we must work within the law to design and implement our regulations to provide incentives for source reduction. That will mean better coordination of different regulations that affect the same industry to reduce transaction costs, minimize cross-media transfers of waste, and provide a clearer sense of our long-term goals for the regulated community.

— EPA's Source Reduction Review Project (SRRP), which is exploring how best to encourage pollution prevention in the design and implementation of rules affecting 17 high priority industries, is a good start toward this goal. I also will expect programs to evaluate opportunities for preventing pollution in each major proposed regulation, as the Pollution Prevention Act requires.

Second, we must encourage pollution prevention as a means of compliance through our permitting, inspection, and enforcement programs, relying on the first-hand experience of regions and states in this area. We can learn valuable lessons from experiments like the Massachusetts Waste Prevention F.I.R.S.T. project, through which the state promotes source reduction as the principal means of correcting violations detected through multi-media inspections.

Finally, we need to collect better data on those cost savings that occur when regulations encourage investments in cleaner, more efficient manufacturing processes. As part of this effort, we must develop credible measures of the economic value of natural resources protected through prevention. We must also explore non-traditional alternatives, such as life-cycle analysis, that help shed light on the advantages prevention can offer in meeting our objectives.

6. State and Local Partnerships

The Clinton Administration has called for a full partnership between federal, state and local governments in defining and carrying out national policy objectives. We delegate so many responsibilities to states and

localities under federal environmental law; we simply cannot hope to offer effective incentives for pollution prevention in permits or inspections without their close cooperation. Furthermore, some states have served as national laboratories for the incubation of exciting new multi-media experiments in reducing waste at the source, and are often more in touch with industry and public needs and how best to meet them. Several states also have taken the lead in helping their citizens and businesses use energy more efficiently.

We can explore different methods for offering state and local governments more flexibility in the federal grants used to support delegated activities like permitting, inspections, and enforcement actions. EPA's new guidance, beginning in the 1994 fiscal year, encourages our regions to work with states to adjust administrative procedures in grant workplans to make room for pollution prevention investments. EPA regions and states should make maximum use of this flexibility, working within the statutory limits that govern grant eligibility. The guidance requires programs to report on legal barriers to funding worthwhile state pollution prevention projects, so that we may consult with Congress to seek appropriate remedies.

We also must trust our state partners with greater responsibility for the Pollution Prevention Information Clearinghouse, which will facilitate prevention technology transfer and technical assistance. Our Regional Offices also have lead responsibilities in the allocation of State grant monies under the Pollution Prevention Act and in the use of Regional extramural resources (i.e. the 2% funds) allocated to pollution prevention activities. We must make effective use of these resources to support strong state and local pollution prevention programs.

7. Private Partnerships

Collaborative efforts with industry or public agencies in many cases can help us achieve results through pollution prevention more quickly than could be obtained through regulation alone. For example, EPA's Green Programs to promote voluntary energy efficiency will play a critical role in helping meet our obligations under the U.S. Action Plan to stabilize greenhouse gas emissions by the year 2000.

Furthermore, regulations often do not reach the more complicated corporate decisions needed to evaluate design, manufacturing, packaging, distribution and marketing practices to reduce pollution and energy consumption. We must encourage these efforts by entering into partnerships with public and private organizations where such cooperation can produce tangible environmental results. EPA's collaborative efforts – like the Green Programs, 33/50 and Design for Environment -- offer encouragement, assistance and public recognition to those companies and groups willing to commit the resources needed to get the job done.

Recently, these initiatives have expanded to include WAVE, a program to encourage water conservation with the hotel/motel industry. Earlier this year, EPA proposed an "Environmental Leadership" program to reward corporations willing to go beyond compliance by making measurable commitments to pollution prevention. EPA's FY 94 budget proposal requests a substantial increase in funding for these programs, reflecting our commitment to achieve environmental gains by working cooperatively with industry. These investments will supplement, but not substitute for, regulatory approaches to pollution prevention.

8. Federal Partnerships

President Clinton's Earth Day speech challenged the federal government to, "lead by example -- not by bureaucratic fiat." Our government has a tremendous impact on the environment as the nation's largest landlord, and its biggest consumer of goods and services. Later this summer, we expect to complete action on an Executive Order that commits federal facilities to publicly report wastes and emissions under TRI, establishes a voluntary goal of cutting federal TRI releases 50% by 1999, and builds pollution prevention into the specifications and standards that guide federal purchases. EPA recognizes that other federal agencies can create major opportunities for pollution prevention through investments in new technologies, and through policies that shape decisions in agriculture, energy, transportation, and the management of natural resources. If we want pollution prevention to expand in these sectors, we must form partnerships that take advantage of the authority and expertise at other federal agencies.

9. Public Information/The Right-To-Know

Since pollution prevention is motivated in part by public information, one of EPA's most important tasks is to collect and disseminate "user-friendly" data that measures progress in reducing waste at its source. The Toxics Release Inventory (TRI) as amended by the Pollution Prevention Act now requires 28,000 industrial facilities to publicly report on the amounts of toxic chemicals generated as waste or released to the environment. These and other environmental data have proved vital in helping industry to identify opportunities to reduce waste and improve economic efficiency. Through public disclosure, the TRI empowers local communities, State agencies and other public interest groups to become stronger advocates for pollution prevention.

I am committed to strengthening the Toxics Release Inventory, both by improving the quality of the

nformation and by making more effective use of EPA's existing authority to expand the scope of reporting to additional chemicals and major sources of pollution. We will also make the information more accessible and understandable to states and local communities that depend on timely and accurate data.

EPA's public data bases are not limited to TRI. Preventing chemical accidents also is important, and the Agency collects information on chemicals that can present a hazard if released during an accident. Data collected under laws such as the Clean Air, Clean Water, and Resource Conservation and Recovery Acts are important indicators of environmental risk as well as prevention opportunities, and EPA must take steps to integrate this information and make it more readily accessible to the public.

We cannot stop at collecting and interpreting data. We should encourage public education, from the university to the grade school level, that illustrates the importance of environmental protection and the benefits of prevention.

10. Technological Innovation

Cooperative efforts with universities, industry, nd other Federal agencies help raise awareness of evention opportunities and attract leading scientists and engineers to engage in demonstration, development, and research focused on new prevention technologies. Accordingly, we must expand work with groups like the Department of Energy and its National Laboratories, the National Science Foundation, the National Institute for Standards and Technology (NIST), states, and the private sector to advance both the development of new pollution prevention technology and the effective delivery of information about such technology to companies looking for more efficient environmental solutions.

I want to make sure that some of the funding available through the President's Environmental Technology Initiative is targeted to help small businesses meet compliance requirements through pollution prevention while remaining competitive. As part of this effort, I will expect our programs to work together to identify small business needs so that we may target short term technical assistance and long term cooperative research in developing cleaner, more efficient technologies.

11. New Legislation

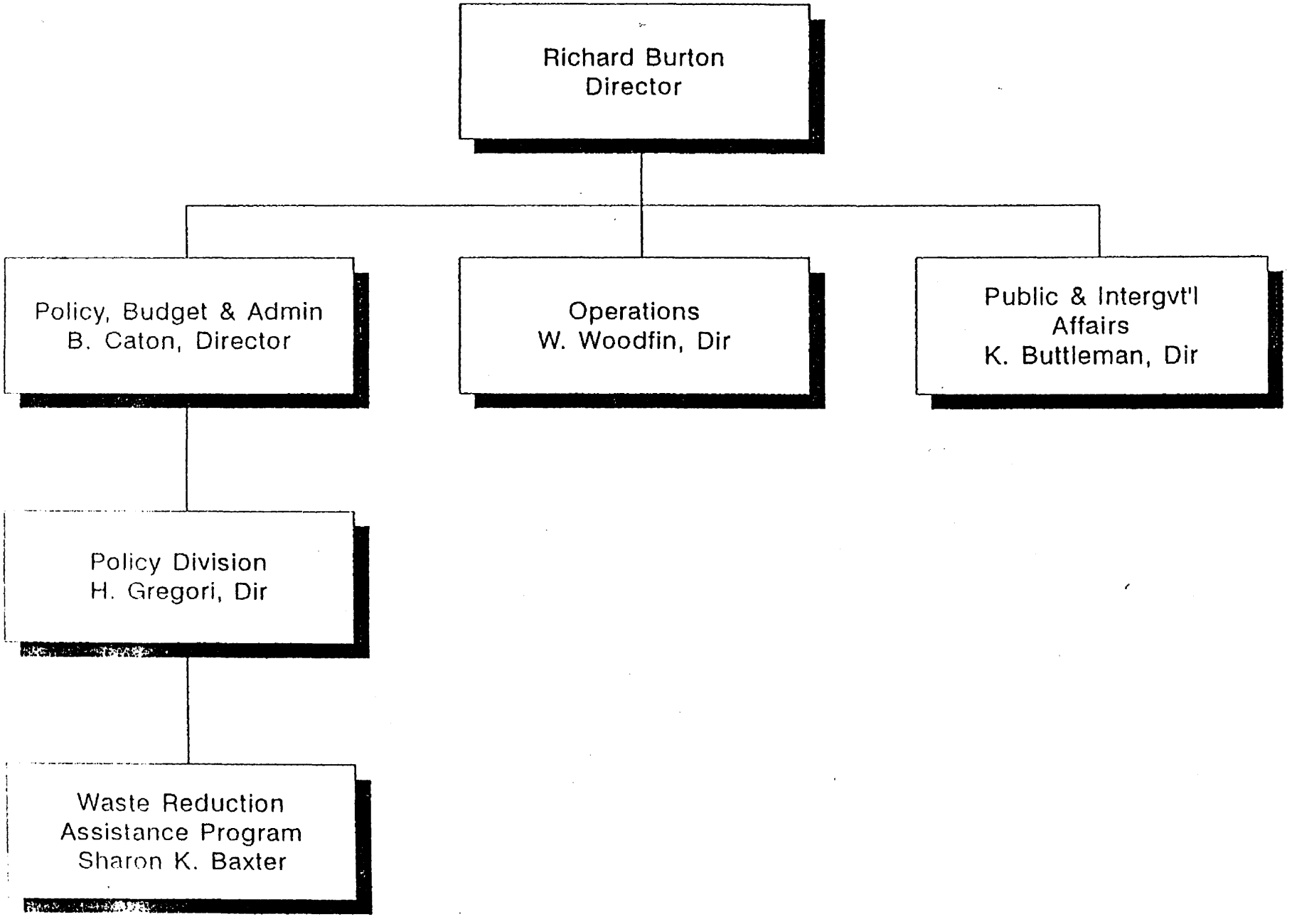
I am convinced that we can achieve many important pollution prevention goals working under existing federal environmental laws. Where these statutes present significant barriers to reducing waste at the source, however, we should not hesitate to share this information with Congress and, if needed, seek appropriate statutory changes. I want to be sure that any effort to seek new authority is informed by fact. That is why it is particularly important to gather specific and accurate information on legal barriers to source reduction identified when developing regulations and negotiating grants with states.

12. Conclusion

I expect pollution prevention to continue to evolve at EPA. As we learn more, no doubt we will have to make adjustments to our programs that reflect new knowledge. In the final analysis, what is critical in our efforts to advance pollution prevention is a willingness to take chances, to question established practices and experiment with new ideas, and above all to cooperate with each other as we try to harmonize environmental protection with economic growth. I hope you share my excitement at the new possibilities for pollution prevention in the Clinton-Gore Administration, and I look forward to working with all of you to achieve the ambitious goals of this policy.

Carol M. Browner
EPA Administrator
June 15, 1993

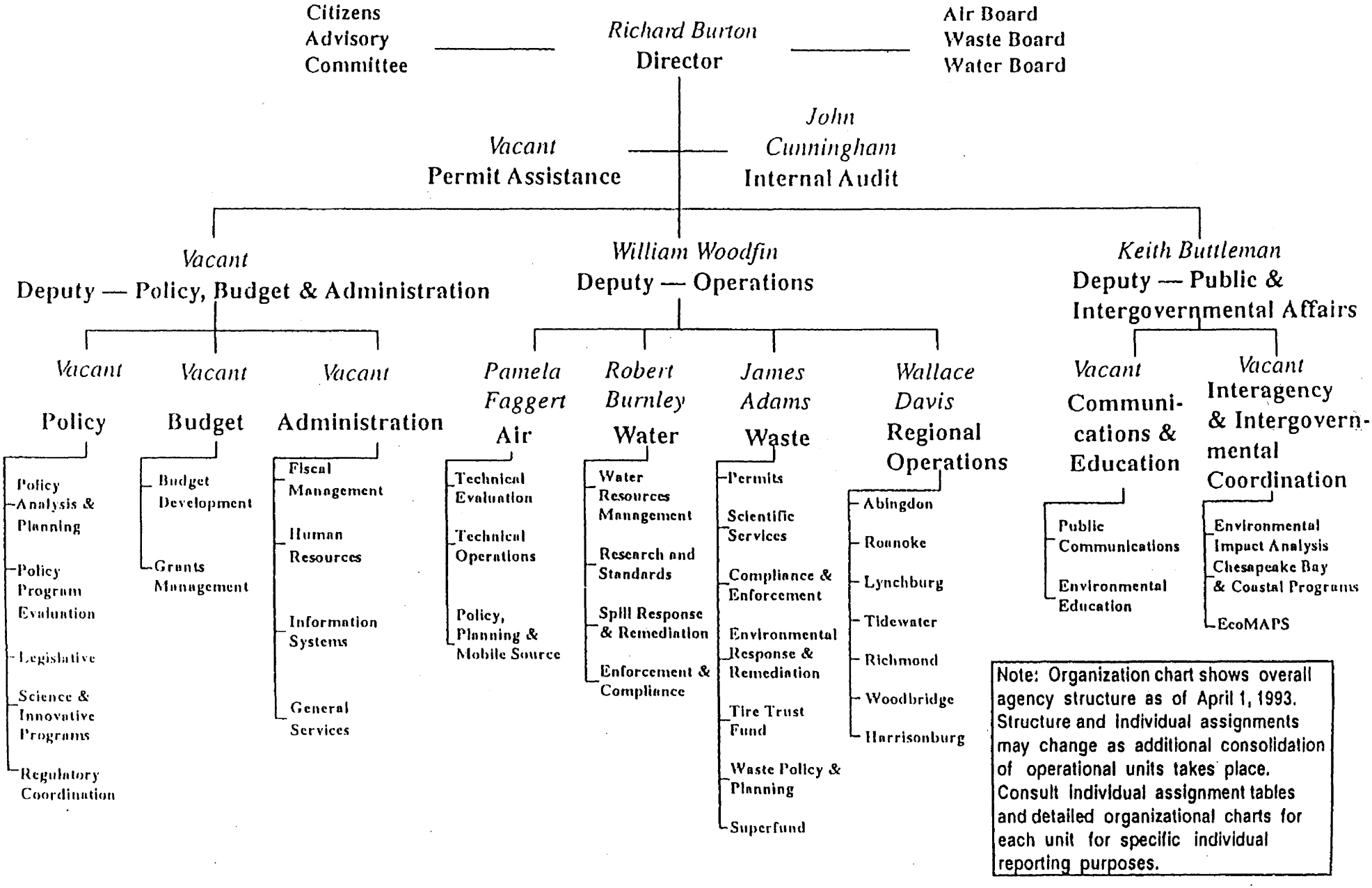
DEPARTMENT OF ENVIRONMENTAL QUALITY



DEPARTMENT OF ENVIRONMENTAL QUALITY

Interim Organization Chart

April 1, 1993



Note: Organization chart shows overall agency structure as of April 1, 1993. Structure and individual assignments may change as additional consolidation of operational units takes place. Consult individual assignment tables and detailed organizational charts for each unit for specific individual reporting purposes.

Appendix 9

Pollution Prevention Advisory Committee

Cathy Taylor
Pollution Prevention Manager
Reynolds Metals Company
Post Office Box 27003
Richmond, Virginia 23261
(804) 281-3576

Jon L. Woltmann, Associate Counsel
Union Camp Fine Paper Division
Post Office Box 178
Franklin, Virginia 23851
(804) 569-4228

Evans Drake, Superintendent
Environmental Control & Industrial Hygiene
Allied Signal, Inc., Hopewell Plant
P.O. Box 761
Hopewell, VA 23860
(804) 541-5732

Ted Jett, Manager
Environmental Engineering
Merck & Company
P.O. Box 7
Elkton, VA 22827
(703) 298-4869

Robert L. Dunn
Virginia State Environmental Affairs
Manager
E.I. Du Pont de Nemours & Company, Inc.
Post Office Box 27001
Richmond, Virginia 23261
(804) 383-3895

Robert W. Rogers
Vice President, Operations
Richmond Newspapers, Inc.
555 Chamberlain Road
Mechanicsville, VA 23111
(804) 559-8201

Hugh D. Keogh, President
Virginia Chamber of Commerce
9 South Fifth Street
Richmond, VA 23219
(804) 644-1607

Carol C. Raper
Vice President and General Counsel
Virginia Manufacturers Association
P.O. Box 412
Richmond, Virginia 23203
(804) 643-7489

James E. Hudgins, President
C.R. Hudgins Plating
4510 Mayflower Drive
Lynchburg, VA 24054
(804) 847-6647

Larry Coffey, Engineering Manager
Virginia Metalcrafters
1010 East Main Street
Waynesboro, VA 22980
(703) 949-9427

Tony Gedeon
Vice President
Blue River Enterprises
315 Twin Lakes Drive
Fredericksburg, VA 22401
(703) 372-3094

Kimberly L. Coble, Virginia Senior Scientist
Chesapeake Bay Foundation
1001 East Main Street
Suite 815, Heritage Building
Richmond, Virginia 23219
(804) 780-1392

James C. McKean, Manager
Industrial Services
Department of Economic Development
P.O. Box 798
Richmond, VA 23206-0798
(804) 371-8227

Jack M. Heinemann
Director, Environmental Technology Programs
Center for Innovative Technology
CIT Building, Suite 600
2214 Rock Hill Road
Herndon, Virginia 22070
(703) 689-3006

Professor W. David Conn
Associate Director
University Center for Environmental & Hazardous Materials Studies
Virginia Polytechnical Institute and State University
Blacksburg, VA 24061-0113
(703) 231-7508

Captain Thomas Welch
Headquarters ACC-CEVCVC
129 Andrews Street, Suite 102
Langley Air Force Base, VA 23665
(804) 764-3252

Dr. Donald R. Delorme, Manager
Pestice Disposal Program
Office of Pesticide Management
Department of Agriculture and Consumer Services
P.O. Box 1163
Richmond, VA 23209
(804) 371-0152

Gordon W. Shelton
Vice Mayor, City of Fredericksburg
3200 Normandy Avenue
Fredericksburg, VA 22401
(703) 373-1778
(703) 372-1010 (City Hall)

Joan Salvati
Environmental Coordinator
Chesterfield County
P.O. Box 40
Chesterfield, VA 23832
(804) 751-4665

Guy Aydlett, Chief
Industrial Waste Division
Hampton Roads Sanitation District
P.O. Box 5911
Virginia Beach, VA 23455-0911
(804) 460-2261

Kimberly V. Davis
Director, Environmental Serivces
Northern Virginia Planning District Commission
753 Little River Turnpike, Suite 100
Annandale, VA 22003
(703) 642-0700

Table 1 - 1991 Toxic Release Inventory (TRI) Summary
(Pounds)

Total Air	67,189,900
Fugitive Air	17,529,915
Stack Air	49,659,985
Water	2,251,183
Total On-Site Land Disposal	2,021,429
Landfill	1,853,557
Land Treatment	5,117
Surface Impoundment	139,825
Other Land Disposal	22,930
Publicly Owned Treatment Works	20,812,402
Total Other Off-Site Transfers	40,805,414
Off-Site Transfers for Recycling or Energy Recovery	35,442,125
Off-Site Transfers for Other Treatment or Disposal	5,363,289
Total Releases/Transfers (including transfers for recycling and/or energy recovery)	133,080,328
Total Releases/Transfers (not including transfers for recycling and/or energy recovery)	97,638,203

Due to changes to the Form R mandated by the Pollution Prevention Act of 1990, facilities are now required to report Off-Site Transfers which are recycled or used for energy recovery. For the previous reporting years (1987-1990) data, these transfers were not reported. In order to allow accurate analysis of the data and the identification of trends in this report, the off-site transfer totals used **will not** include those transfers which were recycled or used for energy recovery. Section 10 of this report details the transfers by facilities for the purpose of recycling and/or energy recovery.

Table 2 - TRI Comparison 1987-1991 (Considering Chemical Deletions)

Calendar year 1991 represents the fifth year of TRI reporting. 467 facilities reported the release of 129 chemicals on 1653 Form R's. A total of 92,274,914 pounds of TRI chemicals were released to the environment and 5,363,289 pounds of TRI chemicals were transferred off-site for treatment or disposal. An additional 35,442,125 pounds of TRI chemicals were transferred off-site to be recycled or used for energy recovery. In 1991, 97,638,203 pounds of TRI chemicals were released or transferred off-site for treatment or disposal, an 8% decrease from last year and a 49% decrease from 1987. While EPA has determined that much of this decline can be attributed to more accurate reporting, this year's source reduction and recycling data indicates many facilities are making actual reductions.

	1987 TRI Releases/Transfers * (pounds)	1988 TRI Releases/Transfers* (pounds)	1989 TRI Releases/Transfers* (pounds)	1990 TRI Releases/Transfers* (pounds)	1991 TRI Releases/Transfers* (pounds)	Net Change 1987-1991 (pounds)	Percent Change 1987-1991
Total Air	139,315,028	126,637,608	81,405,850	76,054,944	67,189,900	-72,125,128	-51.8
Fugitive Air	25,313,130	23,506,091	23,320,441	20,422,720	17,529,915	-7,783,215	-30.7
Stack Air	114,001,898	103,131,517	58,085,409	55,632,224	49,659,985	-64,341,913	-56.4
Water	6,978,160	5,906,358	3,706,200	2,158,381	2,251,183	-4,726,977	-67.7
On-Site Land	5,277,486	6,480,536	2,952,706	2,541,534	2,021,429	-3,256,057	-61.7
POTW**	22,993,583	19,649,805	17,295,552	17,412,600	20,812,402	-2,181,181	-9.5
Other Off-Site***	16,857,303	11,864,269	11,042,019	7,908,485	5,363,289	-11,493,818	-68.2
Total Releases/ Transfers	191,421,560	170,538,576	116,402,327	106,075,944	97,638,203	-93,783,357	-49.0
Number of Facilities	386	437	495	484	467	+81	+21.0
Number of Chemical Reports	1,339	1,491	1,722	1,715	1,653	+314	+23.5

* For the purposes of this comparison, 1987, 1988, 1989 and 1990 TRI data do not include the following delisted chemicals: titanium dioxide, CI Acid Blue 9, melamine crystal, sodium hydroxide, sodium sulfate, aluminum oxide (non-fibrous forms), and terephthalic acid. The data have also been adjusted to reflect changes in reporting ammonium sulfate solution that became effective in 1990; only the ammonia present in the solution is required to be reported.

** Publicly Owned Treatment Works.

*** This figure does not include materials sent off-site for recycling and/or energy recovery.

March 1993

Establishing a statewide goal.

§ **10.1-1425.10. Definition.**--[Amend existing Code section to add the following defined term] As used in this article and in §§ 11-41.02, unless the context requires a different meaning, "toxic or hazardous substance" shall mean (i) all of the chemicals identified on the Toxic Chemical List established pursuant to § 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11001 et seq. (P.L. 99-499), and (ii) all of the chemicals listed pursuant to sections 101 (14) and 102 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq. (P.L. 92-500).

§ **10.1-1425.11:1. Pollution prevention goal.**--A. The General Assembly finds that a goal against which efforts at pollution prevention may be measured is essential for an effective pollution prevention program. The General Assembly recognizes that many individual businesses have already reduced the generation and release of toxic and hazardous substances through appropriate pollution prevention techniques, and that there are some industrial processes which by their nature have limited potential for significantly reducing the generation release of toxic or hazardous substances. Accordingly, the General Assembly adopts a goal of reducing the amount of toxic or hazardous substances used, generated or released within the Commonwealth, using the amount of toxic or hazardous substances generated or released statewide in 1993 as a baseline figure, by 50 percent by January 1, 2000.

B. Progress toward meeting this goal shall be evaluated annually by the Department based on data compiled pursuant to the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11001 et seq. (P.L. 99-499), and other appropriate available information, including but not limited to all data acquired by the Department associated with permit application, issuance, or registration. To determine achievement of reduction goals, the Department may adjust the baseline figure for changes in the statutory definition of toxic or hazardous substances. The Department shall include a description of the Commonwealth's progress in achieving this goal in the evaluation report required by § 10.1-1425.17.

Appendix 13

Pollution prevention implementation within all state agencies.

§ 10.1-1425.11:2. **Duties of state agencies.**--A. Each agency of the Commonwealth which uses, generates, or releases any toxic or hazardous substances shall:

1. Review the programs, processes and activities of the agency and ascertain how reductions in the use, generation, or release of toxic or hazardous substances can be promoted and achieved;

2. Amend those programs, processes and activities so as to reduce the use, generation and release of toxic or hazardous substances in furtherance of the statewide reduction goals established by § 10.1-1425.11:1;

3. Submit to the Department of Environmental Quality an agency pollution prevention plan in accordance with a schedule for the filing of such plans to be established by the Department of Environmental Quality;

4. Amend any specifications established for goods and products procured by the agency to eliminate or reduce the amount of toxic or hazardous substances used directly, or included in goods or products used, by the agency where goods or products are available for procurement which (i) are functionally equivalent to goods or products currently being used or specified by the agency, (ii) are comparable in cost to goods or products currently being used or specified by the agency, and (iii) contain, emit, produce, or generate a lesser amount of toxic or hazardous substances, or a less toxic or less hazardous substance, or both.

Appendix 14

Procurement by state agencies.

§ 11-41.02. Petition for less-polluting goods and products; periodic review of procurement standards.--A. As used in this section, "less-polluting goods and products" means goods and products which (i) are functionally equivalent to, and (ii) contain, emit, produce, or generate a lesser amount of toxic or hazardous substances, or substances with lesser toxicity or degree of hazard, or both, than goods and products procured by the Department of General Services or other agency of the Commonwealth.

B. Any person who believes that particular goods or products are less-polluting goods and products may petition the Department of General Services or any agency of the Commonwealth to include the less-polluting goods and products in its procurement process. The petitioner shall submit, prior to or during the procurement process, documentation which establishes that the goods or products can meet the performance standards set forth in the applicable specifications. If the Department of General Services or the agency of the Commonwealth which receives the petition determines that the documentation demonstrates that the less-polluting goods and products will meet the performance standards set forth in the applicable specifications, it shall incorporate such goods or products into its procurement process.

C. The Department of General Services and all agencies of the Commonwealth shall review and revise their procurement procedures and specifications on a continuing basis to encourage the use of less-polluting goods and products and shall, in developing new procedures and specifications, encourage the use of less-polluting goods and products.

Appendix 15

Pollution prevention planning by state agencies.

§ 10.1-1425.11:3. Agency pollution prevention plans.--A. Each agency of the Commonwealth which uses or generates any toxic or hazardous substance, or generates hazardous waste (as defined in uses § 10.1-1400), shall prepare an agency pollution prevention plan for the reduction of the use or generation of hazardous or toxic substances and the generation of hazardous waste. The Department shall develop, by January 1, 1996, criteria and procedures to ensure the orderly preparation and evaluation of plans. In promulgating the criteria and procedures, the Department shall consult with the pollution prevention advisory panel or panels established pursuant to § 10.1-1425.13. The criteria and procedures shall require the plans to include, among such other items as may be determined advisable, the following:

1. A study which evaluates the potential for any changes in production processes or raw materials that reduce, avoid, or eliminate the use of toxic or hazardous substances and thereby reduces the use or generation of toxic or hazardous substances;

2. Five-year numeric goals for pollution prevention initiatives which reduce the generation of toxic or hazardous substances;

3. Options for reducing the use or generation of toxic or hazardous substances; and

4. A description of the options that the agency will undertake during the next five years to achieve its goals and a schedule for implementing the options.

B. Upon completion of a plan, the head of the agency shall sign and submit the plan to the Department.

C. Plans shall be completed and submitted within two years following the completion of the criteria and procedures.

D. Annual progress reports, including a description of the progress made toward achieving the specific performance goals established in the plan, shall be prepared and submitted to the Department in accordance with rules developed under the section.

E. Every five years, each plan shall be updated and submitted to the Department.

F. An agency of the Commonwealth with multiple facilities where the processes in the facilities are substantially similar may prepare a single plan covering one or more of those facilities.

G. An environmental impact report prepared pursuant to § 10.1-1188 shall include a pollution prevention plan addressing the operations of the major state project.

§ 10.1-1425.11:4. Review of agency pollution prevention plans.--A. The Department shall review every agency pollution prevention plan and any annual progress report to determine whether the plan complies with the criteria and procedures developed by the Department.

B. If a state agency fails to comply with the requirements regarding the preparation of a plan or annual progress report, the Department shall notify the agency of the failure and shall identify specific deficiencies. For the purposes of this section, a deficiency may include failure to submit a plan or annual progress report, or failure to comply with the criteria and procedures developed by the Department.. The Department shall specify a reasonable time frame, of not less than ninety days, within which the agency shall complete a modified plan or annual progress report addressing the specified deficiencies.

C. The Department shall make available for public inspection any plan or annual progress report submitted to the Department.

D. The Department shall maintain a record of each plan and annual progress report it reviews, and a list of all plans, executive summaries, or annual progress reports the Department has determined to be inadequate, including descriptions of corrective actions taken. This information shall be made available to the public.

E. The Department shall prepare a report every two years listing the amount of toxic or hazardous substances used or generated, and the amount of hazardous waste generated, by agencies of the Commonwealth.

Pollution prevention within DEQ.

§ 10.1-1425.19. **Inspections and enforcement actions by the Department.**--A. The Department shall develop and implement, by July 1, 1995, guidelines and regulations regarding the conduct of any inspections which it conducts pursuant to Chapter 13 (§ 10.1-1300 et seq.) and 14 (§ 10.1-1400 et seq.) of Title 10.1 and Chapter 3.1 of Title 62.1 (§ 62.1- 44.2 et seq.) which (1) ensure that, where appropriate, inspections are multi-media in approach; (2) ensure that, where appropriate, the inspections are performed by teams of inspectors authorized to represent the air, water and solid waste programs within the Department; and (3) minimize duplication of inspection and enforcement efforts being conducted with other agencies.

B. The Department shall require that any person found to be violating any law or standard for which the Department has enforcement jurisdiction shall develop a plan to reduce the use or generation of toxic or hazardous substances through pollution prevention initiatives and to the maximum extent possible implement the plan as part of its coming into compliance with the violated law or standard. This shall in no way effect the Commonwealth's ability and responsibilities to seek penalties in enforcement activities.

§ 10.1-1425.12. **Pollution prevention assistance program.** -- The Department shall establish a voluntary pollution prevention assistance program designed to assist all persons in promoting pollution prevention measures in the Commonwealth. The program shall emphasize assistance to local governments and businesses that have inadequate technical and financial resources to obtain information and to assess and implement pollution prevention measures. The program may include, but shall not be limited to:

1. The establishment of a pollution prevention clearinghouse of all available information concerning waste reduction, waste minimization, source reduction, economic and energy savings, and pollution prevention;

2. Assistance in transferring information concerning pollution prevention technologies through workshops, conferences and handbooks;

3. Cooperation with university programs to develop pollution prevention curricula and training;

4. Providing technical assistance to environmental waste generators, including on-site consultation to identify alternative methods that may be applied to prevent pollution; and

5. Researching and recommending incentive programs for innovative pollution prevention programs.

To be eligible for on-site technical assistance, an environmental waste generator must agree to allow information regarding the results of such consulting to be shared with the public, provided that the identity of the

generator shall be made available only with its consent and trade secret information shall remain protected.

§ 10.1-1425.12:1. **Pollution prevention office.**--The Office of Pollution Prevention is established with the Department. The Director shall appoint a person to direct the work of the office, and such person shall report directly to the Director. The Pollution Prevention Office shall:

1. Promote increased coordination of efforts to administer and enforce all federal laws and laws of the Commonwealth and regulations pertaining to toxic material and environmental waste disposal and release, review draft administrative rules and regulations before submission to determine their potential impact on pollution prevention, and determine how Department programs should be coordinated or modifies to promote pollution prevention;

2. Establish methods for expediting permit application review for process or equipment modifications that involve pollution prevention;

3. Establish methods and procedures for managing pollution prevention information and assessing the progress of pollution prevention within the Commonwealth;

4. Oversee the conduct of the pollution prevention assistance program pursuant to § 10.1-1425.12; and

5. Provide general information about, and actively publicize the advantages of and developments in, pollution prevention.

Appendix 17

VIRGINIA MANUFACTURERS ASSOCIATION

PROPOSED REGULATORY INCENTIVES

Civil Penalties:

Section 10.1-1316 of the State Air Pollution Control Law provides for payment of consent penalties on civil charges by violators in settlement of enforcement actions brought by the Board. A similar provision is contained in Section 10.1-1455F of the Code under the Virginia Waste Management Act, and in Section 62.1-44.15(8d) of the Code, which pertains to civil penalties imposed by the State Water Control Board.

The Virginia Environmental Emergency Response Fund, which is established under Section 10.1-2500 of the Code, is designed to receive, among other things, civil penalties and civil charges paid by violators either by consent or by court order. The Emergency Response Fund is designed to do just as its name implies, i.e., provide the State with capability to respond to environmental emergencies and to implement clean-up and corrective action in appropriate cases.

In order to provide incentives for pollution prevention, we suggest that the foregoing Code sections be amended to allow the abatement of up to 50% of the civil charge for expenditures made by the violator within a certain period of time for authorized pollution prevention projects. The remaining civil charges would be paid to the Emergency Response Fund without change. If the violator chose to settle by payment of civil charges but decided not to spend money on a qualified pollution prevention program, civil charges paid by that violator would be divided equally between the Emergency Response Fund and a new "Virginia Pollution Prevention Fund" which would be used to provide information and technical assistance to Virginia businesses in evaluating and implementing pollution prevention opportunities. Monies in the Virginia Pollution Prevention Fund would not be granted directly to businesses but would be used to pay for assistance and information programs.

By splitting the money equally between the two funds, and by providing for only a portion of civil charges (i.e., consensual penalties paid to settle cases with agencies) to go to the Pollution Prevention Fund, it will probably be easier to avoid concerns about depleting the Virginia Emergency Response Fund. That Fund receives monies from other sources, such as court-imposed civil penalties, which would not be affected by the proposed initiative.

Abatement of civil penalties and civil charges for expenditures on pollution control projects is something that is not unknown to Virginia agencies, and a number of cases have been settled this way. Providing for a statutory alternative that would either result directly in implementation of pollution control measures by violators seeking to avoid a portion of their civil charges, or that would result in assistance to statewide pollution control efforts by payment of civil charges

to a fund, would provide a more direct incentive to dispose of cases in this way.

Regulatory Alternatives:

We suggest providing a legislative mandate to Virginia Environmental Agencies to construe their regulatory authority liberally to approve compliance alternatives that result in prevention or reduction of pollution, and that are equally protective of the environment. As you know, there are already provisions in the State Air Pollution Control law and the State Water Control law for the agencies to give consideration to economic factors as well as environmental benefits in establishing regulations. For example, Section 62.1-44.15(3a) provides that whenever the State Water Control Board considers the adoption, modification or amendment of a water quality standard, it must give due consideration to the economic and social costs and benefits which can reasonably be expected from the Board's action. The State Air Pollution Control Board, under Section 10.1-1307E of the Code, is required to consider such things as the social and economic value of the particular activity, and the scientific and economic practicality of reducing or eliminating pollution resulting from the activity.

We suggest that a standard clause be prepared to be inserted into those portions of the Code authorizing the major environmental agencies, i.e., the State Water Control Board, the State Air Pollution Control Board and the Virginia Waste Management Board, to construe and apply their authority in such a way as to ensure that adequate consideration is given to workable pollution prevention alternatives where appropriate. Such language could read as follows:

> The Board, in adopting and implementing its regulations and policies hereunder and in issuing permits, certificates and authorizations for activities regulated under this chapter, shall encourage and give thorough consideration to alternatives that will result in the reduction or elimination of pollution, provided that such alternatives afford an equal level of protection to the environment and public health as would be obtained by conventional technology. In denying the use of an alternative strategy or approach that meets the foregoing criteria, the burden shall be on the agency to justify the reasons for denial.

Under current law and practice, some agency personnel do allow alternative approaches. Statutory language like that suggested above would provide agency personnel a "safe harbor" for considering and allowing such alternatives. Without specific authority, some regulators are understandably hesitant to vary from traditional practices or regulatory provisions.

Appendix 18

GOVERNOR'S AWARDS PROGRAM

VMA supports the Governor's Environmental Excellence Awards Program. This program might be modified to highlight, or grant a special award for, pollution prevention. We would also suggest the following refinements to this worthwhile program:

1. Provide clearly-stated criteria for the award to all potential applicants in advance.

2. Ensure more news coverage prior to the awards ceremony explaining the purpose, categories, etc. of the awards program.

3. Provide broader news coverage of the awards ceremony.

4. List past winners, where appropriate, in brochures, programs, and press releases.

5. Compile and publish all applications so that a large audience can learn about the positive environmental efforts going on in our state and perhaps emulate them.

VMA asks the SJR 103 Pollution Prevention Joint Subcommittee to recommend the foregoing to the Governor and Secretary of Natural Resources.

Appendix 19

Pollution Prevention Plans

1. Definition.

§ Definition -- "Toxic or hazardous substances" shall mean (i) all of the chemicals identified on the Toxic Chemical List established pursuant to § 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11001 et seq. (P.L. 99-499) and (ii) all of the chemicals listed pursuant to sections 101 (14) and 102 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq. (P.L. 92-500).

2. Pollution Prevention Plans--

§ Pollution Prevention Plans -- A. Any facility required to prepare and submit a toxic chemical release form under §313 of the Emergency Planning and Community Right-to-Know Act of 1986 (Public Law 99-499, 42 U.S.C. §11023) shall prepare and submit to the Department a pollution prevention plan. The Department shall encourage implementation of the plan and have the authority to require implementation of the plan as a condition prior to the granting of any variance or similar exception to existing standards, criteria, or policy guidelines. The Department shall develop, by January 1, 1996, criteria and procedures to ensure the orderly preparation, submission and evaluation of plans and annual progress reports. In promulgating the criteria and procedures, the Department shall consult with the pollution prevention advisory panel or panels established pursuant to § 10.1-1425.13. The criteria and procedures shall require the plans to include, among such other items as may be determined advisable, the following:

1. A study which evaluates the potential for any changes in production processes or raw materials that reduce, avoid, or eliminate the use of toxic or other hazardous substances and thereby reduces the use or generation of toxic or hazardous substances;

2. Five-year numeric goals for pollution prevention initiatives which reduce the use or generation of toxic or hazardous substances;

3. Options for reducing the use or generation of toxic or hazardous substances;

4. A description of the measures that the facility will undertake to achieve its five year numeric goals and a schedule for implementing the measures.

5. Certification by the responsible corporate officer or facility manager that they have read the plan and that there is management support for pollution prevention, the plan, and its implementation.

B. Plans shall be completed and submitted in accordance with the provisions of the Department's criteria and procedures and in no event no later than two years following the completion of the criteria and procedures. Each plan shall be updated and submitted to the Department every five years.

C. Annual progress reports, including a description of the progress made toward achieving the five year numeric goals included in the plan shall be prepared and submitted to the Department in accordance with criteria and procedures developed by the Department.

D. Newly constructed or expanded facilities meeting the requirements of subsection A shall submit a pollution prevention plan with the initial application for a waste, water, or air permit or certificate as required under (site statutory reference).

E. All plans and progress reports will be submitted to the Department which will review the plans for completeness and content. Whenever the Director finds that a facility fails to submit a completed plan, the Department will provide written explanation to the facility manager describing additional components needed to assure completion of the plan. Subsequent failure to submit a completed plan in a timely manner may result in i) the Director imposing a civil administrative penalty of not more than $15,000; or ii) the Department revoking, issuing, reissuing or modifying any permit, certificate, registration or any other approval issued by the Department.

F. The Department shall protect all trade secrets shared as a result of the receipt of any pollution prevention plan and all such trade secrets shall be held as confidential. In order to protect a trade secret, a plan may omit the specific chemical identity of a toxic or hazardous substance or the proprietary business information about which information is required and include instead the generic class or category of the toxic or hazardous substance.

G. The Department shall prepare and publish in conjunction with the Toxics Release Inventory (add specific statutory reference) a list of industrial, municipal or other facilities recognized as "Pollution Prevention Pioneers". Recommendations for recognition as a "Pollution Prevention Pioneer" shall be made by the Department to the Governor who shall make the final determination of recognition. To be eligible to receive recognition as a "Pollution Prevention Pioneer" the facility shall submit to the Department a pollution prevention plan. The Department shall evaluate the plan and make recommendations to the Governor for only those facilities whose plans are complete and those that show actual and substantial implementation of the pollution prevention plan. The Governor shall provide special recognition to those "Pollution Prevention Pioneers" which achieve or exceed for their facilities the Statewide percent reduction goal established by §10.1-1425.11:1.

Appendix 20

COMMONWEALTH OF VIRGINIA

R. EDWARD HOUCK
17TH SENATORIAL DISTRICT
SPOTSYLVANIA, BUCKINGHAM, CUMBERLAND,
FLUVANNA, LOUISA; FREDERICKSBURG;
GOOCHLAND, WESTERN PART; ORANGE, EASTERN PART
P.O. BOX 7
SPOTSYLVANIA, VIRGINIA 22553

COMMITTEE ASSIGNMENTS:
EDUCATION AND HEALTH
GENERAL LAWS
LOCAL GOVERNMENT
TRANSPORTATION
RULES

SENATE

January 18, 1994

The Honorable George F. Allen
Governor
Capitol Building
Richmond, Virginia 23219

Dear Governor Allen:

On behalf of the Joint Subcommittee studying pollution prevention pursuant to Senate Joint Resolution 207, I would like to express the sense of the members regarding the Governor's Environmental Excellence Awards Program and the need to minimize duplication of compliance requirements in Virginia's environmental programs.

At its meeting on January 11, 1994, the Joint Subcommittee unanimously endorsed several proposals introduced by the Virginia Manufacturers Association for improvements in the Governor's Environmental Excellence Awards Program. We urge that this worthwhile Program be continued, and that it be modified to place special emphasis on pollution prevention efforts. We suggest that the role of the Department of Environmental Quality in selecting programs based on their pollution prevention or source reduction successes be expanded.

In increasing the prominence of pollution prevention efforts in the Awards Program, the Joint Subcommittee recommends that recognition be given to manufacturers and others which have made achievements in the past as well as to those achieving successes in the year in which an award is granted. Spotlighting past as well as present accomplishments will enhance the visibility of valuable efforts not previously given adequate recognition.

Additional refinements to the Governor's Environmental Excellence Awards Program endorsed by the Joint Subcommittee include (i) providing prior notice of the criteria by applications will be judged; (ii) ensuring more news media coverage prior to the awards ceremony explaining the Program; (iii) providing broader

news coverage of the awards ceremony; (iv) listing past award winners in appropriate brochures and press releases; and (v) compiling and publishing all applications so that a large audience can learn about, and perhaps emulate, the positive environmental efforts underway in the Commonwealth.

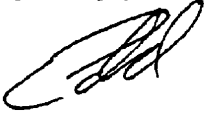
The Joint Subcommittee also unanimously recommended notifying you of the need to eliminate duplicative requirements in Virginia's environmental programs. The Joint Subcommittee has found instances of duplication and redundancy in some of the reporting and record keeping mandates imposed by environmental regulations. The members of the Joint Subcommittee agree that it is in the best interests of the Commonwealth to minimize duplication wherever possible.

The Joint Subcommittee respectfully encourages you do direct the appropriate persons in your administration to act quickly to minimize duplicative and redundant requirements imposed by environmental programs in the Commonwealth. The Joint Subcommittee stands willing to share information with your staff regarding the examples of unnecessary duplication and redundancy.

In our two years of work, the members of the Joint Subcommittee have made progress in heightening public awareness of pollution prevention and identifying opportunities for its implementation. The Joint Subcommittee has endorsed a resolution continuing the study for another year. We will appreciate your support for the continuation of the Joint Subcommittee, and we look forward to working with members of your cabinet and administration in the coming year.

Your consideration of these requests is appreciated. The legislative members of the Joint Subcommittee have signed this letter to demonstrate their support of these proposals.

Very truly yours,



R. Edward Houck
Member, Senate of Virginia
Joint Subcommittee Chairman

Gladys B. Keating
Member, House of Delegates
Joint Subcommittee Vice Chairman

Janet D. Howell
Member, Senate of Virginia
Joint Subcommittee Member

Frederick M. Quayle
Member, Senate of Virginia
Joint Subcommittee Member

Kenneth R. Plum
Member, House of Delegates
Joint Subcommittee Member

Phillip A. Hamilton
Member, House of Delegates
Joint Subcommittee Member

Flora D. Crittenden
Member, House of Delegates
Joint Subcommittee Member

cc: Nonlegislative Members of the Joint Subcommittee

1994 SESSION

LD5722685

SENATE JOINT RESOLUTION NO. 173

Offered January 25, 1994

Continuing the Joint Subcommittee Studying Pollution Prevention.

Patrons—Houck, Howell and Quayle; Delegates: Crittenden, Hamilton, Keating and Plum

Referred to the Committee on Rules

WHEREAS, Senate Joint Resolution 103 of 1992 established the Joint Subcommittee Studying Pollution Prevention; and

WHEREAS, Senate Joint Resolution 207 of 1993 continued the joint subcommittee for a second year; and

WHEREAS, the joint subcommittee examined numerous issues and has developed several recommendations; and

WHEREAS, due to the large quantity and complexity of the issues involved, the joint subcommittee has agreed that another year of study is necessary; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Joint Subcommittee Studying Pollution Prevention be continued. The membership of the Joint Subcommittee shall continue as established by Senate Joint Resolution 103 of the 1992 Session of the General Assembly. Vacancies shall be filled in the same manner as the original appointment. The charge of the joint subcommittee shall remain as set forth in Senate Joint Resolution 103 of 1992.

The Joint Subcommittee shall complete its work in time to submit its findings and recommendations to the Governor and the 1995 Session of the General Assembly in accordance with the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

The direct costs of this study shall not exceed $4,050.

The Division of Legislative Services shall provide staff support for the study. All agencies of the Commonwealth shall provide assistance to the joint subcommittee upon request.

Implementation of this resolution is subject to subsequent approval and certification by the Joint Rules Committee. The Committee may withhold expenditures or delay the period for the conduct of the study.

Official Use By Clerks	
Agreed to By The Senate	**Agreed to By The House of Delegates**
without amendment ☐	without amendment ☐
with amendment ☐	with amendment ☐
substitute ☐	substitute ☐
substitute w/amdt ☐	substitute w/amdt ☐
Date: _____	Date: _____
Clerk of the Senate	Clerk of the House of Delegates

1994 SESSION

LD5754320

HOUSE BILL NO. 1220

AMENDMENT IN THE NATURE OF A SUBSTITUTE

(Proposed by the House Committee on Conservation and Natural Resources on February 2, 1994)

(Patron Prior to Substitute—Delegate Keating)

A BILL to amend the Code of Virginia by adding a section numbered 11-41.02, relating to petitions for state procurement of less toxic goods and products.

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered 11-41.02 as follows:

§ 11-41.02. Petition for procurement of less toxic goods and products; periodic review of procurement standards.

A. As used in this section:

"Goods and products" means goods and products that are used or consumed by an agency of the Commonwealth in the performance of its statutory functions. The term shall include, but not be limited to: (i) cleaning materials, (ii) paints and coatings, (iii) solvents, (iv) paving materials, (v) adhesives, (vi) inks, and (vii) pesticides and herbicides. The term shall not include: (i) fuels, (ii) food and beverages, (iii) furniture and fixtures, (iv) tobacco products, and (v) packaging and containers.

"Less toxic goods and products" means goods and products which (i) are functionally equivalent to and (ii) contain, emit, produce, or generate, less toxic or hazardous substances, or other toxic or hazardous substances which pose less of a hazard to public health and safety, or both, than goods and products procured by the Department of General Services or other agency of the Commonwealth.

"Toxic or hazardous substance" means (i) a chemical identified on the Toxic Chemical List established pursuant to § 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11001 et seq. (P.L. 99-499) or (ii) a chemical listed pursuant to §§ 101 (14) or 102 of the Comprehensive Environmental Response, Compensation and Liability Act, 42. U.S.C. § 9601 et seq. (P.L. 92-500).

B. Any person who manufactures, sells, or supplies goods or products may petition the Department of General Services or other appropriate agency of the Commonwealth for the inclusion of the less toxic goods and products in its procurement process. The petitioner shall submit, prior to or during the procurement process, documentation which establishes that the goods or products meet the performance standards set forth in the applicable specifications. If the Department of General Services or other agency of the Commonwealth which receives the petition determines that the documentation establishes that the less toxic goods or products meet the performance standards set forth in the applicable specifications, it shall incorporate such goods or products into its procurement process.

C. The Department of General Services and other agencies of the Commonwealth shall review and revise their procurement procedures and specifications on a continuing basis to encourage the use of less toxic goods and products.

Official Use By Clerks	
Passed By The House of Delegates	**Passed By The Senate**
without amendment ☐	without amendment ☐
with amendment ☐	with amendment ☐
substitute ☐	substitute ☐
substitute w/amdt ☐	substitute w/amdt ☐
Date: _____	Date: _____
_____	_____
Clerk of the House of Delegates	Clerk of the Senate

1994 SESSION

LD5764408

HOUSE BILL NO. 1251

AMENDMENT IN THE NATURE OF A SUBSTITUTE

(Proposed by the House Committee on Conservation and Natural Resources on February 10, 1994)

(Patron Prior to Substitute—Delegate Plum)

A BILL to amend and reenact §§ 10.1-1425.10 and 10.1-1425.12 of the Code of Virginia and to amend the Code of Virginia by adding in Article 3.3 of Chapter 14 of Title 10.1 a section numbered 10.1-1425.19, relating to pollution prevention program.

Be it enacted by the General Assembly of Virginia:

1. That §§ 10.1-1425.10 and 10.1-1425.12 of the Code of Virginia are amended and reenacted and that the Code of Virginia is amended by adding in Article 3.3 of Chapter 14 of Title 10.1 a section numbered 10.1-1425.19 as follows:

§ 10.1-1425.10. Definition.

As used in this article, unless the context requires a different meaning,*:*

~~"pollution~~ *"Pollution* prevention" means eliminating or reducing the use, generation or release at the source of environmental waste. Methods of pollution prevention include, but are not limited to, equipment or technology modifications; process or procedure modifications; reformulation or redesign of products; substitution of raw materials; improvements in housekeeping, maintenance, training, or inventory control; and closed-loop recycling, ~~on-site~~ *onsite* process-related recycling, reuse or extended use of any material utilizing equipment or methods which are an integral part of a production process. The term shall not include any practice which alters the physical, chemical, or biological characteristics or the volume of an environmental waste through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service, and shall not include treatment, increased pollution control, off-site or nonprocess-related recycling, or incineration.

"Toxic or hazardous substance" means (i) all of the chemicals identified on the Toxic Chemical List established pursuant to § 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11001 et seq. (P.L. 99-499), and (ii) all of the chemicals listed pursuant to §§ 101 (14) and 102 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq. (P.L. 92-500).

§ 10.1-1425.12. Pollution prevention assistance program.

The Department shall establish a voluntary pollution prevention assistance program designed to assist all persons in promoting pollution prevention measures in the Commonwealth. The program shall emphasize assistance to local governments and businesses that have inadequate technical and financial resources to obtain information and to assess and implement pollution prevention measures. *The program may include, but shall not be limited to:*

1. Establishment of a pollution prevention clearinghouse for all available information concerning waste reduction, waste minimization, source reduction, economic and energy savings, and pollution prevention;

2. Assistance in transferring information concerning pollution prevention technologies through workshops, conferences and handbooks;

3. Cooperation with university programs to develop pollution prevention curricula and training;

4. Technical assistance to generators of toxic or hazardous substances, including onsite consultation to identify alternative methods that may be applied to prevent pollution; and

5. Researching and recommending incentive programs for innovative pollution prevention programs.

To be eligible for onsite technical assistance, a generator of toxic or hazardous substances must agree to allow information regarding the results of such assistance to be shared with the public, provided that the identity of the generator shall be made available only with its consent and trade-secret information shall remain protected.

A. The Department shall seek to ensure, where appropriate, that any inspections conducted pursuant to Chapters 13 (§ 10.1-1300 et seq.) and 14 (§ 10.1-1400 et seq.) of Title 10.1 and Chapter 3.1 (§ 62.1-44.2 et seq.) of Title 62.1 (i) are multimedia in approach; (ii) are performed by teams of inspectors authorized to represent the air, water and solid waste programs within the Department; and (iii) minimize duplication of inspections, reporting requirements, and enforcement efforts.

B. The Department may allow any person found to be violating any law or standard for which the Department has enforcement jurisdiction to develop a plan to reduce the use or generation of toxic or hazardous substances through pollution prevention incentives or initiatives and, to the maximum extent possible, implement the plan as part of coming into compliance with the violated law or standard. This shall in no way affect the Commonwealth's ability and responsibility to seek penalties in enforcement activities.

Official Use By Clerks

Passed By The House of Delegates		**Passed By The Senate**	
without amendment	☐	without amendment	☐
with amendment	☐	with amendment	☐
substitute	☐	substitute	☐
substitute w/amdt	☐	substitute w/amdt	☐
Date: _____		Date: _____	
Clerk of the House of Delegates		Clerk of the Senate	

1994 SESSION

LD5723685

HOUSE BILL NO. 1215

Offered January 25, 1994

A BILL to amend and reenact § 10.1-1425.10 of the Code of Virginia and to amend the Code of Virginia by adding a section numbered 10.1-1425.11:1, relating to establishment of pollution prevention goal.

Patrons—Plum, Keating, Puller, Scott, Van Landingham and Van Yahres; Senators: Houck and Howell

---

Referred to Committee on Conservation and Natural Resources

Be it enacted by the General Assembly of Virginia:

1. That § 10.1-1425.10 of the Code of Virginia is amended and reenacted and that the Code of Virginia is amended by adding a section numbered 10.1-1425.11:1 as follows:

§ 10.1-1425.10. Definition.

As used in this article, unless the context requires a different meaning, ~~"pollution~~ *"Pollution* prevention" means eliminating or reducing the use, generation or release at the source of environmental waste. Methods of pollution prevention include, but are not limited to, equipment or technology modifications; process or procedure modifications; reformulation or redesign of products; substitution of raw materials; improvements in housekeeping, maintenance, training, or inventory control; and closed-loop recycling, on-site process-related recycling, reuse or extended use of any material utilizing equipment or methods which are an integral part of a production process. The term shall not include any practice which alters the physical, chemical, or biological characteristics or the volume of an environmental waste through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service, and shall not include treatment, increased pollution control, off-site or nonprocess-related recycling, or incineration.

"Toxic or hazardous substance" means (i) a chemical identified on the Toxic Chemical List established pursuant to § 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11001 et seq. (P.L. 99-499) or (ii) a chemical listed pursuant to sections 101 (14) and 102 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq. (P.L. 92-500).

§ 10.1-1425.11:1. Pollution prevention goal.

A. The General Assembly finds that a goal against which efforts at pollution prevention may be measured is essential for an effective pollution prevention program. The General Assembly recognizes that many individual businesses have already reduced the generation and release of toxic and hazardous substances through appropriate pollution prevention techniques, and that there are some industrial processes which by their nature have limited potential for significantly reducing the generation and release of toxic or hazardous substances. Accordingly, the General Assembly adopts a goal of reducing the amount of toxic or hazardous substances used, generated or released within the Commonwealth, using the amount of toxic or hazardous substances generated or released statewide in 1993 as a baseline figure, by fifty percent by January 1, 2000.

B. Progress toward meeting this goal shall be evaluated annually by the Department based on data compiled pursuant to the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11001 et seq. (P.L. 99-499), and other appropriate available information, including but not limited to all data acquired by the Department associated with permit application, issuance, or registration. To determine achievement of reduction goals, the Department may adjust the baseline figure for changes in the statutory definition of toxic or hazardous substances. The Department shall include a description of the Commonwealth's progress in achieving this goal in the evaluation report required by § 10.1-1425.17.

LD5726685

HOUSE BILL NO. 1216

Offered January 25, 1994

A BILL to amend and reenact § 10.1-1425.10 of the Code of Virginia and to amend the Code of Virginia by adding sections numbered 10.1-1425.11:1 and 10.1-1425.11:2, relating to pollution prevention planning by state agencies.

Patrons—Plum, Keating, Puller, Scott, Van Landingham and Van Yahres; Senators: Houck and Howell

---

Referred to Committee on Conservation and Natural Resources

Be it enacted by the General Assembly of Virginia:

1. That § 10.1-1425.10 of the Code of Virginia is amended and reenacted and that the Code of Virginia is amended by adding sections numbered 10.1-1425.11:1 and 10.1-1425.11:2 as follows:

§ 10.1-1425.10. Definition.

As used in this article, unless the context requires a different meaning,:

~~"pollution~~ *"Pollution* prevention" means eliminating or reducing the use, generation or release at the source of environmental waste. Methods of pollution prevention include, but are not limited to, equipment or technology modifications; process or procedure modifications; reformulation or redesign of products; substitution of raw materials; improvements in housekeeping, maintenance, training, or inventory control; and closed-loop recycling, on-site process-related recycling, reuse or extended use of any material utilizing equipment or methods which are an integral part of a production process. The term shall not include any practice which alters the physical, chemical, or biological characteristics or the volume of an environmental waste through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service, and shall not include treatment, increased pollution control, off-site or nonprocess-related recycling, or incineration.

"Toxic or hazardous substance" means (i) a chemical identified on the Toxic Chemical List established pursuant to § 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11001 et seq. (P.L. 99-499), or (ii) a chemical listed pursuant to §§ 101 (14) or 102 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq. (P.L. 92-500).

§ 10.1-1425.11:1. Agency pollution prevention plans.

A. Each agency of the Commonwealth which uses or generates more than a minimal amount of toxic or hazardous substances, or which generates any hazardous waste, shall prepare an agency pollution prevention plan. The plan shall address the reduction of the use or generation of hazardous or toxic substances and the generation of hazardous waste.

B. By January 1, 1996, the Department shall establish criteria for determining whether a minimal amount of toxic or hazardous substances is used or generated. In developing the criteria, the Department shall consider, among other factors, (i) risks to public health and safety posed by the use or release of such substances, (ii) the cost and availability of less toxic substitute materials, and (iii) the cost of preparing and complying with a plan.

C. By January 1, 1996, the Department shall develop criteria and procedures to ensure the orderly preparation and evaluation of agency pollution prevention plans. In developing the criteria and procedures, the Department shall consult with the pollution prevention advisory panel or panels established pursuant to § 10.1-1425.13. The criteria and procedures shall require the plans to include, among such other things as may be determined advisable, the following:

1. A study which evaluates the potential for any changes in production processes or raw materials, or both, that reduce, avoid, or eliminate the use of toxic or hazardous substances and thereby reduce the release or generation of toxic or hazardous substances

or the release of hazardous waste;

2. Five-year numeric goals for pollution prevention initiatives which reduce the release or generation of hazardous or toxic substances or the release of hazardous waste;

3. Options for reducing the use, generation or release of toxic or hazardous substances; and

4. A description of those options the agency will implement during the next five years to achieve its goals and a schedule for implementing the options.

D. Upon completing a plan, the head of the agency shall sign the plan and submit it to the Department.

E. Plans shall be completed and submitted within two years following the development of the criteria and procedures by the Department pursuant to subsection C.

F. Agencies shall prepare and submit to the Department annual progress reports in accordance with criteria and procedures developed by the Department. The annual progress reports shall include a description of the progress made toward achieving the specific performance goals established in the agency's plan.

G. Agency pollution prevention plans shall be updated and submitted to the Department every five years.

H. An agency with multiple facilities using processes that are substantially similar may prepare a single plan addressing all or any lesser number of the facilities.

I. An environmental impact report prepared pursuant to § 10.1-1188 shall include an agency pollution prevention plan addressing the operations of the major state project.

§ 10.1-1425.11:2. Review of agency protection plans.

A. The Department shall review every agency pollution prevention plan and annual progress report submitted pursuant to § 10.1-1425.11:1 to determine whether the plan or report complies with the criteria and procedures developed by the Department.

B. If a state agency fails to comply with the requirements regarding the preparation of a plan or annual progress report, the Department shall notify the agency of the failure and shall identify specific deficiencies. For the purposes of this section, a deficiency may include a failure to submit a plan or annual progress report, or failure to comply with the criteria and procedures developed by the Department. The Department shall specify a reasonable period of time of not less than ninety days within which the agency shall complete a modified plan or annual progress report addressing the specified deficiencies.

C. The Department shall make available for public inspection any plan or annual progress report submitted to the Department.

D. The Department shall maintain a record of each plan and annual progress report it reviews, and a record of any plans and annual progress reports it has determined to be inadequate, including descriptions of corrective actions taken. This information shall be made available to the public.

E. The Department shall prepare a report every two years, based on information submitted by state agencies in plans and annual progress reports, listing the amount of toxic or hazardous substances used or generated, and the amount of hazardous waste generated, by agencies of the Commonwealth.

1994 SESSION

LD5724685

HOUSE BILL NO. 1221

Offered January 25, 1994

A BILL to amend and reenact § 10.1-1425.10 of the Code of Virginia and to amend the Code of Virginia by adding a section numbered 10.1-1425.11:1, relating to implementation of pollution prevention within state agencies.

Patrons—Keating, Albo, Connally, Cooper, DeBoer, Grayson, Griffith and Puller; Senators: Houck, Howell and Woods

---

Referred to Committee on Conservation and Natural Resources

Be it enacted by the General Assembly of Virginia:

1. That § 10.1-1425.10 of the Code of Virginia is amended and reenacted and the Code of Virginia is amended by adding a section numbered 10.1-1425.11:1 as follows:

§ 10.1-1425.10. Definition.

As used in this article, unless the context requires a different meaning,:

"~~pollution~~ *Pollution* prevention" means eliminating or reducing the use, generation or release at the source of environmental waste. Methods of pollution prevention include, but are not limited to, equipment or technology modifications; process or procedure modifications; reformulation or redesign of products; substitution of raw materials; improvements in housekeeping, maintenance, training, or inventory control; and closed-loop recycling, on-site process-related recycling, reuse or extended use of any material utilizing equipment or methods which are an integral part of a production process. The term shall not include any practice which alters the physical, chemical, or biological characteristics or the volume of an environmental waste through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service, and shall not include treatment, increased pollution control, off-site or nonprocess-related recycling, or incineration.

"Toxic or hazardous substance" means (i) a chemical identified on the Toxic Chemical List established pursuant to § 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11001 et seq. (P.L. 99-499), or (ii) a chemical listed pursuant to §§ 101 (14) or 102 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq. (P.L. 92-500).

§ 10.1-1425.11:1. Duties of state agencies.

A. Each agency of the Commonwealth which uses or generates more than a minimal amount of a toxic or hazardous substance shall:

1. Review the programs, processes, and activities of the agency and ascertain how reductions in the use, generation, or release of toxic or hazardous substances can be promoted and achieved;

2. Amend those programs, processes, and activities so as to reduce the use, generation, and release of toxic or hazardous substances in furtherance of statewide goals for reducing or eliminating toxic or hazardous substances;

3. Submit to the Department an agency pollution prevention plan in accordance with a schedule for the filing of such plans to be established by the Department of Environmental Quality; and

4. Amend any specifications established for goods and products procured by the agency to eliminate or reduce the amount of toxic or hazardous substances used directly or included in goods or products used by the agency if goods or products are available for procurement which (i) are functionally equivalent to goods or products currently being used or specified by the agency, (ii) are comparable in cost to goods or products currently being used or specified by the agency, and (iii) contain, emit, produce, or generate a lesser amount of toxic or hazardous substances or a less toxic or less hazardous substance, or both.

B. By January 1, 1996, the Department shall establish criteria for determining whether

a minimal amount of toxic or hazardous substances is used or generated. In developing the criteria, the Department shall consider, among other factors, (i) risks to public health and safety posed by the use or release of such substances, and (ii) the cost and availability of less toxic substitute materials.

Official Use By Clerks	
Passed By The House of Delegates	**Passed By The Senate**
without amendment ☐	without amendment ☐
with amendment ☐	with amendment ☐
substitute ☐	substitute ☐
substitute w/amdt ☐	substitute w/amdt ☐
Date: _____	Date: _____
Clerk of the House of Delegates	Clerk of the Senate