

**REPORT OF THE  
JOINT SUBCOMMITTEE ON**

# **Enhancing End-Use Recycling Markets**

**TO THE GOVERNOR AND  
THE GENERAL ASSEMBLY OF VIRGINIA**



## **HOUSE DOCUMENT NO. 95**

**COMMONWEALTH OF VIRGINIA  
RICHMOND  
1994**

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**REPORT OF THE JOINT SUBCOMMITTEE ON  
ENHANCING END-USE RECYCLING MARKETS  
(HJR 466)**

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

**I. AUTHORITY FOR STUDY**

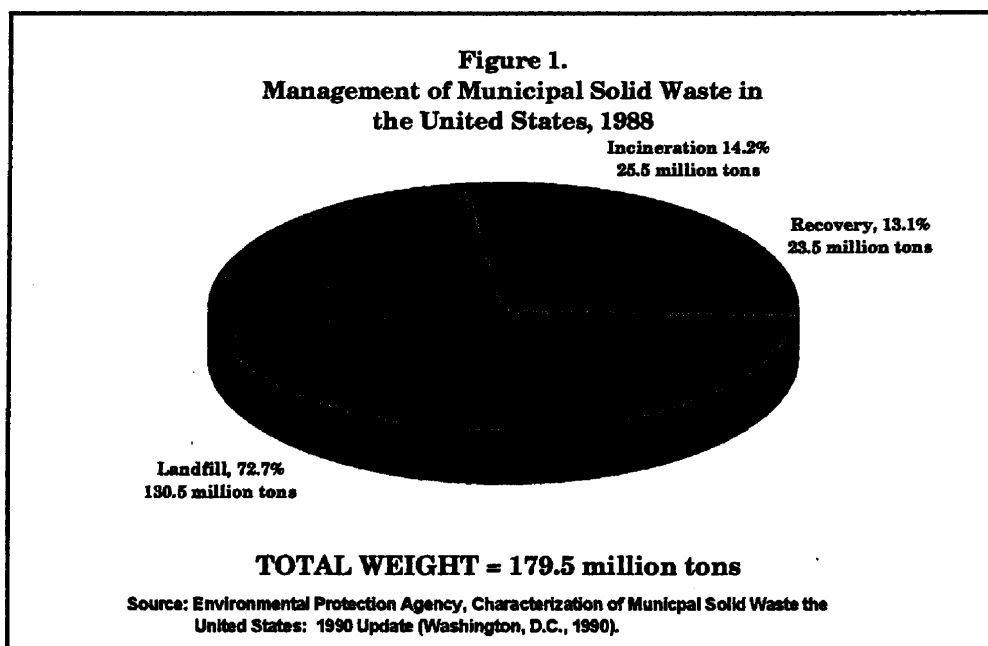
The 1992 Session of the General Assembly passed House Joint Resolution 244, which authorized the establishment of a joint subcommittee to study and develop recommendations on legislative actions necessary to create or enhance end-use markets for recycled materials collected in the Commonwealth (see Appendix A). The work of the subcommittee was continued in 1993 under House Joint Resolution 466 (see Appendix B). During its two years of deliberations, the joint subcommittee was to develop recommendations for creating or stimulating Virginia markets for recyclable materials by: (i) reviewing the progress made by Virginia localities and private industry in developing recyclable material collection, processing and marketing infrastructure in response to state legislative mandates; (ii) reviewing the historical and projected trends for recycled materials markets in the Mid-Atlantic region; (iii) reviewing and evaluating legislation enacted by other states to respond to the need to stimulate markets for recycled goods; (iv) reviewing and evaluating existing state legislation, regulations or administrative practices which may serve as an impediment to establishing or expanding a market for recycled goods in Virginia; (v) reviewing and evaluating efforts to assist industrial expansion and attract new industry to the Commonwealth where the industries affected would create new demand for difficult-to-market recyclable materials; (vi) examining proposals to increase government procurement of recycled goods, including a review of price preference and mandatory content requirements used in the public sector; and (vii) conducting a survey of existing Virginia industries to determine what types and volumes of raw (virgin and recycled) materials are used.

The joint subcommittee was composed of 11 members: four members of the House of Delegates; two members of the Senate; three citizen members, one each who represented consumer, local government and business community interests; the Executive Director of the Department of Waste Management or his designee; and a representative of the Virginia Department of Economic Development.

## II. BACKGROUND

### A. Waste Generation and Disposal: Need for Alternative Strategies

In 1960, Americans discarded 2.7 pounds of trash per person per day. Today, the figure is four pounds per day or almost three-quarters of a ton of garbage per person per year. Figures from the U.S. Environmental Protection Agency (EPA) indicate that approximately 180 million tons of municipal solid waste (MSW) were generated in 1988, a 71 percent increase over 1975. If waste production trends continue, the EPA predicts that, by the year 2000, approximately 216 million tons per year will be generated. Figure 1 below indicates that about 73 percent of MSW is disposed of in landfills, 14 percent incinerated and the remaining 13 percent recycled.



While the amount of waste continues to increase, the number of disposal sites is decreasing. In 1979, nearly 20,000 landfills were operating in the United States; by 1986 only 7,000 remained open. EPA projects that, by 1996, 33 percent of the existing landfills will close because they will be full or will not be in compliance with the revised standards of Section D of the 1976 Resource Conservation and Recovery Act.<sup>1</sup> The lack of capacity as well as such environmental concerns as the potential for groundwater pollution, methane gas generation, and increased truck traffic have made landfills a less attractive waste disposal option. In addition, the new federal mandates on waste management facilities will continue to increase the cost of operating such facilities. This is best reflected by the fact that in some

<sup>1</sup> Promoting Source Reduction and Recyclability in the Marketplace, EPA Office of Policy, Planning, and Evaluation, 1989, p. 8.

regions of the United States 'tipping fees' can exceed \$120 per ton, compared with \$10 per ton just a few years ago.

In response to this situation recent strategies have focused on ways to reduce the waste stream. Recycling is one alternative with great potential. In 1960, only 6.7 percent of municipal solid waste (MSW) was recycled; in 1988, approximately 13 percent was recycled. EPA has set national recycling goals of 25 percent by 1992 and 40 per cent by 1996. However, government officials acknowledge that the goals may be difficult to attain because of problems in infrastructure, financing, marketing and regulation.

Recycling is not just the separation and collection of waste goods that have the potential for reuse. It consists of three distinct but mutually dependent components: collection, reprocessing and procurement. The cycle starts with the collection and separation of reusable materials from the waste stream. These materials must find buyers who will process them into new raw materials, and businesses may then buy and manufacture the materials into competitive products. Ultimately, consumers buy these new goods made from recycled material, thus completing the cycle. A key element in recycling becoming a successful strategy is that the materials collected have to be of the highest quality and supplied to manufacturers on a regular basis, in consistent volumes, and at a price competitive with virgin raw materials.

## **B. Summary of Recycling Efforts of States<sup>2</sup>**

Early recycling efforts encouraged the collection of materials, but virtually ignored the potential market demand for such materials. Consequently, there was an occasional over-abundance of recycled material, such as the newspaper glut in 1989, when public response to recycling efforts far exceeded market demand for the material collected. The 1990 report of the National Conference of State Legislatures (NCSL) Developing Recycling Markets and Industries points out that states are realizing that recycling is not only an environmental and solid waste management issue but is also an economic development issue. The report looks at market development as critical to the success of recycling. The survey responses of legislative and executive agencies representing 48 states and territories indicate states are becoming more active in (i) offering economic development programs which provide business incentives to encourage the recycling industry and (ii) encouraging markets for recycled materials and goods by either enhancing the climate for recycled goods or discouraging specific business or individual consumption.

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<sup>2</sup> Portions of this section are excerpted from the 1990 NCSL survey presented in Developing Recycling Markets and Industries, Christian Turner and Gayna Ashley, National Conference of State Legislatures, July 1990.

Thirty-six states provide a variety of business development tools to encourage recycling. Such incentives may include tax incentives, grants and loans, venture capital, enterprise zones, and resource and development incubators. Used to encourage investment by private industry, a tax incentive may be a deduction, exemption, tax credit, or reduced tax rate on sales, property, or income taxes. The goal of tax incentives for the recycling industry is to encourage private industry to install new, or retrofit existing, machinery with components that will increase the capacity to process or manufacture recycled goods. Sixteen states and territories indicated that they used such tax incentives. California, New Jersey, North Carolina, and Oregon have established recycling investment tax credit programs for the purchase of recycling machinery and equipment. New Jersey provides a 50 percent business income tax credit for equipment to transport recyclables. Oregon provides tax credits for equipment, property, or machinery necessary to collect, transport, or process reclaimed plastic. Indiana, Kentucky, North Carolina and Wisconsin use property tax exemptions to encourage recycling industries. Sales tax exemptions for recycling equipment have been enacted in Illinois, New Jersey and Wisconsin.

Grants or loans to private industry or localities have also been used by states to encourage the recycling industry. The NCSL survey found that grants and loans are the most popular way by which states assist recycling industries with capital financing. Of the 48 states surveyed, 25 responded that they use grants and loans as a means to promote the recycling industry. The New Jersey Office of Recycling provides business loans for recycling processors and manufacturers. In addition, the state Department of Environmental Protection funded the expansion of a paper mill to increase the mill's ability to process paper products returned by consumers. Minnesota offers grants and loans for tire recycling operations. Pennsylvania established the Environmental Technology Loan Fund for recycling processors and manufacturers to purchase or upgrade equipment or machinery. New York's Office of Recycling has the Secondary Materials Technology Adoption Loan Program that offers loans to businesses for equipment and facilities. Both Michigan and Illinois have low-interest loan funds available for recycling programs.

In Iowa, the Landfill Alternatives Grant Program, established in 1987, provides grants to private industry and localities for feasibility studies, research and development, technical assistance, and curbside recycling. The funds for the Iowa program come from the Exxon oil overcharge fund and from landfill fees. Oklahoma also uses oil overcharge funds for capital expenditures grants to start up or expand recycling activities. Maine's program, which is funded by a five million dollar bond issue, provides capital grants to municipalities for recycling business assistance. Louisiana's grant program funds parishes to develop recycling plans or hire recycling coordinators. Florida, Indiana, Pennsylvania, and Wisconsin award grants to localities to develop recycling programs.

State venture capital programs, either directly or indirectly, increase the amount of equity or risk capital available to private firms. Venture capital is provided to new firms in an effort to enhance the business climate. A measurable goal, such as job creation or an increased tax base, are usually linked to venture capital initiatives. Nine states have established venture capital programs to support the recycling industry.

Enterprise zones were created in the 1980s to encourage private investment in distressed communities. The zones use incentives to make specific areas more attractive to business and may include tax incentives, property tax credits, low-interest loans, and job training. Of the 29 states with enterprise zone programs, seven use them to promote recycling.

If the recycling industry is to expand, new processes must be developed that allow manufacturers and processors of waste to operate more efficiently. Fourteen states have small business incubators established to increase the number of high-tech jobs. The incubators are usually associated with a university and provide work space, administrative and professional services and other means of assistance, all designed to aid small businesses. "High-tech centers" have been authorized or funded by 12 states, and 24 states fund recycling research.

States can also engage in strategies which encourage or discourage certain behaviors in order to promote markets for recycled materials. Initiatives which enhance the climate for recycled goods include mandates for source separation, regulations governing the encoding of plastics, recycling goals, content standards, transportation taxes and interstate programs; deterrents which discourage specific kinds of business and individual consumption include taxes on goods or packaging, taxes on materials which do not contain a certain percentage of recycled content, and bans on specific packaging or recyclable materials. The components of recycling include the collection of waste materials, the preparation of those waste materials for industry markets and the use of prepared wastes in the manufacture of a product.

Manufacturers require a steady supply of high quality recyclables. Therefore, some states have mandated source separation. Proponents of source separation laws claim the laws keep recyclables out of the waste stream, reduce the volume of municipal solid waste, prevent contamination and preserve the value of recycled materials. Critics of the mandates point out that the laws can produce a glut of materials if markets are unavailable for the materials. The NCSL survey found that 14 states have some form of required source separation.

Encoding has been established for major plastic groups (i.e., PET, HDPE, and LDPE). Plastics when separated by resin type command better prices and a wider range of uses. In an effort to promote uniform markets, 22 states have adopted plastics encoding regulations.



The establishment of recycling goals helps to ensure a steadily increasing supply of recyclables while decreasing the volume of the waste stream. The District of Columbia and 29 states have established recycling goals, with dates set for implementation ranging from 1990 to 2000. Rhode Island, the first state to adopt a statewide mandatory recycling program in 1986 with a goal of recycling 15 percent by 1992, had achieved 14 percent by 1991. The state of Washington has set a particularly high goal of 50 percent by 1995 and has achieved 28 percent.

A number of states have attempted to promote the use of recyclables by establishing recycled content requirements. Seven states (Arizona, California, Connecticut, Illinois, Maryland, Missouri and Wisconsin) require newspapers to use some specified percentage of recycled paper in newsprint. Connecticut and Rhode Island mandate recycling of telephone books. Wisconsin has set recycled content standards for all plastic containers, and California requires that glass containers and trash bags contain minimum percentages of recycled materials.

It is generally agreed that transportation is the key to a healthy recycling industry. Every aspect of recycling from collection, to processing, to manufacturing, to resale depends upon reliable and cost-efficient transportation. The cost of transporting low-value, low-density material is often too prohibitive to permit the successful collection of recyclables for processing. In many states, the distance between collection points and processing facilities makes recycling uneconomical. Three states (Washington, Oregon, and Texas) have enacted incentives to encourage affordable transportation of recycled goods from collection points to site for processing and manufacturing. In 1990, the State of Washington enacted SB 6700 which exempted motor vehicles from rate regulation when: (i) transporting recovered materials from a site generating 10,000 or more tons a year to a reprocessing facility or end-use manufacturing site, (ii) transporting recovered materials from a reprocessing plant to another reprocessing plant or end-use manufacturing site, or (iii) transporting mixed waste paper from a reprocessing facility to an energy recovery facility. In the late 1970s, Oregon began to exempt certain recycling programs from intrastate tariffs approved by the state Public Utilities Commission. For a program to be eligible for the exemption, it had to be certified by the Department of Environmental Quality. Once this status has been obtained, any company transporting recycled goods would not be required to pay normal tariffs. Certified recycling programs include private industries such as newspaper de-inking facilities, glass manufacturers, steel mills using 100 percent scrap metal, and plastics recycling firms as well as community recycling projects. Texas required the Railroad Commission to set intrastate rates for motor carriers transporting recyclable materials which are comparable to interstate rates. The commission would issue certificates of convenience and necessity to persons wishing to transport recyclable materials.

Twenty-two states have undertaken some form of interstate cooperation in an effort to pool their supplies of recycled materials. The two largest regional recycling

organizations are the Northeast Recycling Council and the Midwest Recycling Coalition. Underlying such regional efforts is the idea that by states working together they make it attractive for recycling firms to locate within the region.

In an effort to discourage the use of certain goods or materials, a number of states have instituted a system of tax-based disincentives. Twelve states have adopted taxes on goods or packaging because legislators in those states believe certain products or packaging have an "abnormally high" impact on the waste stream. The moneys from the taxes are used to alleviate impacts on the landfills and to finance programs for recycling those products. To stimulate the demand for recycled goods, other states (Connecticut, Florida and Wisconsin) tax the use of virgin materials or materials lacking a specified recycled content. Some of the tax revenues are used to finance recycling programs.

### **C. Three States' Approaches to Market Development**

The states of Minnesota, Pennsylvania and Florida have developed recycling programs which reflect different approaches to market development. While each state's program emphasizes the importance of developing markets for recyclables, they differ in the extent to which they (i) provide incentives, (ii) promote public/private cooperation, and (iii) finance the various activities. Minnesota has recognized that the state should be a "player" in the market. There is a 10 percent price preference for recycled products, with particular emphasis on construction material. The state provides both sales and property tax reductions for the purchase or operation of recycling equipment. Recycling grants of up to \$50,000 are available to businesses for feasibility studies on the use of post-consumer materials and up to \$30,000 for used tire feasibility studies. Loans are available to companies which process waste tires. Under the tire program a firm can apply for a loan of up to \$1.5 million or 90 percent of the eligible costs.

In judging what elements of their program have been the most successful, Minnesota officials indicated that the technical assistance for emerging or expanding businesses to develop potential new markets, offered by the Office of Waste Management, is particularly effective. The other program component which has been widely accepted is financial assistance in the form of grants and low-interest loans which are made available to local governments, businesses, and nonprofit organizations for recycling market development. In 1991, two million dollars was awarded for nine projects. Currently 38 projects are under consideration for funding.

A grant under the county grant and loan program may be made to a county for projects which improve the quality of recyclable materials, create or expand capacity for use of recyclables by manufacturers, or increase the demand for recycled products. Two projects which were funded in 1991 were the development

of a cooperative marketing program by an association of counties and research on the export of recyclable materials and products manufactured from recycled materials. The capital loan program is available to both profit and nonprofit private sector companies. Loans of up to \$500,000 or 50 percent of eligible capital costs, whichever is less, can be made for projects which create or expand capacity for use of recycled materials in manufacturing or provide end-use markets for materials collected in Minnesota's recycling program.

Research institutions and private organizations are eligible to apply for grants for initiatives that support regional, state or county efforts in market development. Research institutions may receive funds covering 100 percent of eligible costs, and private organizations may receive funds covering 50 percent of eligible costs. In either case the maximum grant is \$100,000. Projects eligible for funding include:

- Development of performance data in recycled products;
- Feasibility studies on increasing capacity for recyclables by manufacturing; and
- Directed research on products manufactured using recyclables as raw materials.

In order to further promote market development, Minnesota established the Market Development Coordinating Council and developed a "buy-recycled" program. The Council consists of 18 members who represent state and local government, and private industry. Its responsibilities include coordination of the state's recycling market development programs, revision of development strategies, advice on loan and grant expenditures and evaluation of the impact of current market development. Through the "Buy-Recycled" program, information is provided on recycled products, and how and where they may be purchased. The state also operates a research clearinghouse on markets and products.

Pennsylvania has developed a recycling program which has a three-fold purpose: (i) to stimulate the recycling industry, (ii) to protect the environment, and (iii) to further the recycling goals of the Commonwealth. A recycling fund has been established as the source of funding for the state's recycling program. The fund is capitalized through a per ton surcharge on solid waste disposed of in Pennsylvania. Originally the fund was used to assist community recycling programs. Since 1979, such programs have received almost \$70 million for capital costs. The focus of the fund recently changed to one of providing assistance in market development.

In an effort to link recycling and economic development, a program has been instituted called the Recycling Economic Development Program. This program has two components: (i) recycling business development which provides specific incentives to stimulate the development of the recycling manufacturing industry and (ii) product demand incentives to provide incentives which help increase the

market driven demand for products made with recycled materials. The recycling business development component, designed to complement the state's mandatory recycling programs, incorporates two strategies: (i) funding of a new loan program (the Recycling Incentive Development Account) and (ii) targeting the recycling manufacturing industry. The loan program is to be funded at \$5.4 million annually, with five million dollars generated through solid waste disposal fees. Applications are evaluated by the Department of Commerce using such criteria as projected sales and revenues, financial statements, changes in strategy, jobs which are created, and types and amounts of materials recycled. Approved projects are funded at \$30,000 per job created or retained. The other financial incentive to be provided by this program will be a public/private grant program. Approximately two million dollars will be set aside to support public/private partnership marketing projects. The grants are structured to encourage local government cooperation with the private sector. The grant funds will be used by the locality to purchase processing equipment, but the locality may lease the equipment to a private processor.

The goal of the second component of the Recycling Economic Development Program, product demand development, is to increase the demand for recycled materials and the prices of these materials. This is to be accomplished through:

- An increase of state and local procurement of post-consumer recycled content products;
- Education and labeling initiatives designed to increase consumer purchases of products with recycled content; and
- An increase in the commitment of the private sector to using recycled materials in the manufacture of products.

Before these new initiatives were announced, state law had directed Pennsylvania's Department of General Services to provide a five percent price preference to bidders who certify their products contain a minimum of 10 percent post-consumer recycled content. Other state agencies were only "encouraged" to provide the five percent preference. The new initiative resulted in the following changes to state procurement policy: (i) a requirement that all state agencies implement the five percent preference; (ii) coordination with local government officials to utilize the state piggyback purchasing program; and (iii) continuation of policies which emphasize the post-consumer recycled content of products.

To stimulate consumer demand, the state has begun a "buy-recycled" campaign. The program is designed to heighten consumer awareness of the recycled content in products and in packaging. The campaign incorporates several elements including traveling mall and museum exhibits which serve as educational tools promoting recycled products, a "buy-recycled" brochure, and a toll-free hotline. The staff of the

toll-free hotline not only answers questions on how and where to recycle but provides information on the availability of market development assistance.

The state also encouraged private businesses, local governments and not-for-profit organizations to purchase recycled goods through its "Buy-Recycled Pledge" campaign. The entities which participate make a pledge to purchase products with post-consumer recycled content. It is anticipated that such efforts will create demand for products containing recycled materials.

In addition to these new programs, Pennsylvania continues to administer a variety of loan and grant programs. Like Minnesota, the state provides business loans (up to \$300,000 or 50 percent of eligible costs, whichever is less) which are available to companies for the purchase or upgrading of equipment or machinery used to process post-consumer material. The interest rate is two percent, and the loan must be paid back in seven years. Grants are available to assist in the development of cooperative marketing activities. Eligible projects include cooperative recycling efforts or any project which seeks to regionalize collection services or share a recycling facility. The average grant size is \$6,000.

Florida has recently embarked upon a new recycling program called "closed loop." This entails a market strategy which combines the bid process for waste removal with government procurement. The plan encourages market development by emphasizing business incentives rather than state mandates. According to the plan, the state will designate recycling business ventures that would bid competitively to both remove specific recyclable materials from state institutions and then sell these recycled materials back to the state. Thus, the designation "closed loop" system.

The first venture will be recycling spent fuels, a contract worth about \$18 million. Florida will recycle its fuel and buy back recycled antifreeze and refined oil. The state is also conducting a paper inventory in preparation for a paper venture. In an effort to heighten consumer awareness, any product manufactured in the closed loop program will be designated as made from Florida waste. The business ventures must also offer the products on the private market and cannot rely on the state for their total market. In order for the state to "close the loop" through its purchase of goods made with recycled materials, agencies like General Services and Transportation will review their specifications and make appropriate modifications. In other cases, specifications for new products will have to be developed.

Even prior to initiation of the closed loop program, Florida had instituted several market development incentives. The state has a sales tax exemption on the purchase of recycling machinery, and state agencies allow a 10 percent price preference for the purchase of recycled products with particular emphasis on construction materials.

## D. Recycling in Virginia

### 1. State Agency Responsibilities

#### a. Department of Environmental Quality (DEQ) (previously the Department of Waste Management)<sup>3</sup>

In the early 1980s, recycling formed part of the program of the Division of Litter Control in the Department of Conservation and Historic Resources. In 1986, the Division of Litter Control was merged with several other divisions and agencies as part of the Department of Waste Management (DWM). The Division was renamed the Division of Litter Control and Recycling to reflect the added responsibility for promoting recycling statewide. In 1989, the General Assembly passed HB 1743, which authorized the Virginia Department of Waste Management to promulgate regulations specifying requirements for comprehensive, 20-year local and regional solid waste management plans. The regulations cover all aspects of solid waste management and include waste reduction, recycling and reuse, storage, treatment and disposal. The 1989 legislation also mandated specific recycling rates: 10 percent by 1991, 15 percent by 1993, and 25 percent by 1995; however, the statute (§ 10.1-1411) requires that variances or exemptions from the recycling rates be granted "when market conditions beyond the control of a county, city, town, or region make such mandatory rates unreasonable." The Department will analyze information from these plans in order to develop a long-term (20-year) needs assessment as well as a capacity analysis. The reports from each Virginia locality or region will indicate not only the overall recycling rates, but also will detail information on the quantities of individual materials. Recycling credit is awarded by DEQ for specific actions on "hard-to-recycle" items. Localities accepting "fluff" (plastics, rubber, etc.) from recycling scrap metal or processing scrap tires through acceptable means can apply for additional recycling credits. Waste minimization, waste reuse and reclamation of organic residues from refuse-derived fuel producers can all mean further recycling credits.

As is the case in other states, Virginia provides a variety of incentives to encourage recycling. In addition to general fund appropriations, Virginia's recycling activities are financed through dedicated revenues from the taxes collected on materials which are part of the waste stream. The General Assembly enacted a 50 cent tax on each new vehicular tire sold on and after

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<sup>3</sup> The Department of Environmental Quality was established on April 1, 1993, as a result of action taken by the 1992 Session of the General Assembly which authorized the consolidation of the administrative functions of four agencies--the Departments of Air Pollution Control and Solid Waste Management, the State Water Control Board and the Council on the Environment. For the purposes of this report, references to the Department of Waste Management will continue in those instances when that agency was responsible for a particular action and in order to provide the appropriate context.

January 1, 1990. The funds, deposited in a Waste Tire Trust Fund, are used by the Department of Waste Management to develop and implement a statewide scrap tire management program. The Department is procuring the services of scrap tire processors located across Virginia. It has recently begun a project with the U.S. Army Corps of Engineers to identify and rate the environmental effects of the 250-300 existing tire piles in Virginia.

Each year DEQ distributes over \$500,000 in grants to localities from the state litter tax revenue. These funds, dispensed on a formula basis since 1978, can be used for recycling, litter control, and other waste management efforts. Moreover, in 1989 the Virginia Resources Authority's bonding authority was increased by statute from \$300 million to \$400 million in recognition of the cost to localities of financing recycling, resource recovery, and other waste management facilities.

In 1990, Virginia enacted a recycling tax credit which allows individuals and corporations to take a tax credit worth 10 percent of the price of any machinery and equipment used for processing recyclable materials purchased between January 1, 1991, and December 31, 1994. The credit also applies to manufacturing plants that use recycled products. The legislature also gave Virginia localities the authority to reduce or eliminate property taxes on the same equipment. The reduced tax rate must be available for at least five years. Only Frederick County has implemented this tax policy.

An incentive of a regulatory nature is the General Assembly's directive to the Waste Management Board to substantially change the regulatory control over yardwaste composting facilities. New rules, titled Yardwaste Composting Facility Regulations (VR 672-20-32; Jan. 29, 1992), allow a permit-by-rule only, which means that a yardwaste composting facility can be constructed and operated without a waste management permit, if the applicant can assure the Board that the facility will be designed and operated within the limits set in VR 672-20-32.

Two regional programs have been initiated to foster market development in Virginia. First, the Appalachian Regional Commission (ARC) has given the Department a \$100,000 grant to develop the Appalachian Regional Recycling Consortium to serve the ARC localities in Southwestern Virginia; the Department, VPI & SU and the ARC localities then provide \$100,000 in cash and in-kind match. The project, which runs through April 1994, consists of three components:

- Analysis of existing markets serving southwestern Virginia and the potential for using collected recyclables in industries within the ARC region;

- Establishment of the Consortium, a regional brokerage of collected recyclables; and
- Establishment of yardwaste composting programs for the ARC region. Several composting operations exist in eastern Virginia. The objective of this project is to demonstrate its viability in the western portions of Virginia.

The second regional effort is the Southern States Waste Management Coalition, which includes 16 states pledged to develop multistate strategies for effective waste management. Staffed by the Southern States Energy Board in Atlanta, the Coalition consists of gubernatorial appointees from each state and representatives of local government, academia, and the consumer products industry. The Coalition will initially focus on mechanisms to increase the use of collected recyclables and then consider source reduction, material reuse, and other components of comprehensive solid waste management.

Just as Virginia legislation creates inducements to recycle, it also establishes penalties for inappropriate disposal of dangerous materials. For example, Article 3.1 (§ 10.1-1425.1 et seq.) of Chapter 19 of Title 10.1 of the Virginia Code bans the disposal of automobile lead-acid batteries anywhere in the State. Under this article, retailers of such batteries must offer to take back the old battery when a new one is purchased. The retailer must recycle it through a materials broker or battery wholesaler, who must guarantee its recycling at a smelter in the United States. Because of the relative ease of recycling this product, most battery smelters pay for old batteries. In addition, retail establishments that sell motor oil and lead-acid batteries are required to post public information signs, such as posters supplied by the Commonwealth. Virginia law also bans several disposable items from sale in Virginia, such as noncoded (SPI Code System) plastic containers, nondegradable plastic six-pack connector rings, and any packaging with CFCs used in its production.

b. Other State Agencies

Article 3.2 (§ 10.1-1425.6 et seq.) of the Virginia Waste Management Act, enacted in 1990, sets forth the recycling duties of state agencies and state universities. Section 10.1-1425.6 requires that each agency and university establish programs for the use of recycled materials and for the collection of all recyclable materials used by them, including, at a minimum, motor oil, glass, aluminum, office paper and corrugated paper. Each agency must also implement procedures for (i) the collection and storage of recyclable materials, (ii) disposal of those materials to buyers, and (iii) the reduction of waste



generated by the agency. Three state agencies are given specific duties and authorities in addition to the general requirements.

DEQ and the Department of General Services are responsible for various components of this program. Under the first phase of the program, the Department of Waste Management developed a manual titled State Agency Planning Guidelines for the Collection and Marketing of Recyclable Materials: A Program Manager's Handbook. For each agency the Guidelines require the appointment of a recycling program manager, a recycling collection plan by January 1, 1992, and an annual report of the volumes of materials discarded and recycled during the calendar year. The data from these reports should give the first clear picture of the levels of recycling and solid waste generation by state facilities. Phase II will involve an affirmative action procurement program developed by the Department of General Services for the purchase of recycled materials. General Services will also devise a system of tracking the independent purchases of such materials through each agency's purchasing program. Phase III will consist of developing a second manual and a recycling plan amendment for waste minimization programs at each agency.

The Virginia Department of Transportation is authorized to conduct recycling research projects, including demonstration projects using ground rubber or glass for road surfaces, resurfaces or subbases and plastic or mixed plastic materials for ground or guard rail posts, fence posts and sign supports. The 1992 Session established the Recycled Materials in Highway Construction Advisory Committee to (i) set specifications for using recycled glass in highway-related construction and (ii) adopt a five-year plan for increased use of glass (§ 33.1-23.5:2.).

In 1990, legislation directed the Department of Education to develop guidelines for public schools for the use of recycled materials, the collection of recyclables and the reduction of waste generated by the school.

Required by § 10.1-1425.7 to assist the Department of Waste Management by "encouraging and promoting the establishment of appropriate recycling industries" in Virginia, the Department of Economic Development has initiated several on-going efforts aimed at recycling market development in Virginia. This assistance includes participation in developing a Virginia Strategic Recycling Action Plan for the Secretaries of Natural Resources and Economic Development in 1991; participation on legislative-created recycling task forces such as those for used tires and the newsprint industry; and membership in Department of Waste Management advisory committees.

Through press releases, brochures and publications, seminars for economic development professionals, speaking engagements, participation in regional state recycling groups, and individualized responses by the Department's

research section, the Department also disseminates information to industry, communities, and the public about recycling market development.

Moreover, three divisions within the Department counsel business and industry on recycling. The Industrial Development Group assists Virginia manufacturers in identifying new sources of recycled material feedstock; locating markets for industrial by-products and waste streams; expanding or initiating new recycling operations or processes; and resolving the myriad regulatory and permitting requirements of these efforts. The Industrial Development Marketing staff works with regional and local economic development offices to attract new, basic manufacturing and recycling-related industries to Virginia which ultimately provide the markets for Virginia's recyclable waste stream. This effort includes assistance with siting, financing, and environmental permitting. The Department often works closely with the staff of the Department of Waste Management in the referral of and assistance to prospective recycling industries. The Small Business and Financial Services Section, in addition to its financing programs, staffs the 19 Small Business Development Centers located around the State that provide the specialized management assistance which might be required by new recycling businesses.

## 2. Procurement Practices

States have only recently recognized the role that their procurement practices can play in enhancing markets for recyclable materials and goods. As recently as the late 1980s, only 13 states had procurement policies for recycled products; today, all 50 states have them. These programs take several basic forms, including price preferences, "life cycle costing," procurement goals or set-asides, demonstration programs, technical assistance and research. The first procurement laws, enacted 20 years ago, simply encouraged states to purchase recycled goods. Thirty-eight states and the District of Columbia now have laws which direct or encourage state agencies to buy recycled goods. Currently, 20 states authorize agencies to purchase recycled goods at a cost of up to 10 percent more than for competing goods. Twenty-three states allow agencies to spend five percent to 10 percent more for products with recycled content; however, the price preference in nearly half those instances applies only to paper or paper products. Sixteen states have established goals for the amount of goods with recycled content which must be purchased.

Under the federal Resource Conservation and Recovery Act (RCRA), a requirement exists for purchase of recycled products by federal, state and local agencies and contractors using federal funds. Under RCRA, agencies and contractors are required to review specifications for products for which guidelines have been established. The EPA has issued guidelines addressing certain recycled products: paper and paper products, lubricating oils containing

re-refined oil, retread tires, building insulation materials, and, cement and concrete containing incinerator ash. The guidelines contain specifications, minimum recycled content standards and recommendations for procurement programs. Guidelines on construction materials, rubber products, asphalt rubber paving and yardwaste compost are under consideration.

In 1989, the General Assembly amended the Code by establishing a price preference for recycled paper purchased for use by state agencies (§ 11-47.2). A year later the preference was extended to all paper products made with recycled content purchased by the State. That same year, local governments were authorized to establish price preferences for recycled paper and paper products in their procurement policies. Recycled paper and paper products means those products which meet the EPA Recommended Content standards as set forth in 40 C.F.R. Part 250. Senate Bill 287 (1990), which became Article 3.2 (§ 10.1-1425.6 et seq.) of Chapter 14 of Title 10.1, required all agencies and institutions of the Commonwealth to purchase and use recycled products whenever feasible.

In response to these legislative mandates, the Department of General Services instituted an "affirmative procurement program" for purchase of recycled products. By law, every "department, division, institution, officer and agency" must purchase through the Division of Purchases and Supply within the Department of General Services "all materials, equipment, supplies, printing and nonprofessional services of every description" except as otherwise authorized (§ 2.1-440). The procurement program has four basic elements:

- The recovered materials preference program;
- The promotional program;
- Certification; and
- Annual review and reporting.

This program has resulted in the increased purchase of materials with recycled content. During FY 1989-90 the central warehouse purchased \$2,214,150 in recycled paper products, including 100 percent of hand towels, toilet tissue, facial tissue and napkins, all of which met EPA post-consumer waste guidelines. The Division of Purchases and Supply also conducted an extensive test of recycled paper in copiers. Four million sheets were used during the test, which was conducted by 11 agencies at 58 locations on 43 different types of photocopiers. The copies were compared with virgin paper on the basis of brightness, opacity, feel and "runability." The Division found that the recycled paper test results "indicated a 90 percent equal or better than rating." The Division has included in state copier contracts that all photocopiers must run recycled paper and has added a full line of recycled products to the state paper contract. Furthermore, as contracts are rebid or renewed, recycled paper products are added, including offset paper, cover paper, envelopes and computer

paper. Printing contracts are bid both for recycled and virgin paper, with contracts awarded after application of the 10 percent price preference for recycled paper. Twenty-one contracts have been awarded for recycled paper at a total cost of three million dollars. In FY 1989-90, a total of over five million dollars worth of recycled products was purchased from the central warehouse or through the Division of Purchases and Supply.

### **E. Previous Virginia Recycling and Market Development Studies**

Between 1989 and 1991 the following six studies were conducted to assess current recycling efforts and the potential for recycling in Virginia:

- Center for Innovative Technology. A Recycling Market Development Plan for Virginia, 1990. (Conducted for the Secretaries of Natural Resources and Economic Development.)
- Department of Waste Management. Promoting the Procurement and Use of Recycled Products by Agencies of the Commonwealth, House Document 33, 1991. (Conducted pursuant to HJR 158, 1990.)
- Department of Waste Management. The Commonwealth of Virginia Recycled Newsprint Advisory Task Force, House Document 25, 1991. (Conducted pursuant to HJR 150, 1990.)
- Department of Waste Management. The Feasibility of a Statewide Yardwaste Composting Program for Virginia, House Document 34, 1990. (Conducted pursuant to HJR 395, 1989.)
- Joint Subcommittee established pursuant to HJR 384 (1989). The Means and Methods of Providing for Safe, Economical and Efficient Disposal of Recycling Residues and Examining Tax Incentives to Encourage Recycling in the Commonwealth, House Document 74, 1990.
- M.I.D.A.S., Inc. Recyclable Materials Marketing Study, 1989. (Conducted for the Department of Waste Management.)

Three studies, the CIT, Department of Waste Management study on procurement (House Document 33) and MIDAS, present strategies for developing markets for Virginia's recyclable materials and describe the current barriers of impediments in establishing such markets. A summary of the findings and recommendations of each of three studies follows.

CIT's study for the Secretaries of Natural Resources and Economic Development described a successful market plan as one which incorporates five elements: (i) the

strength of the market forces which will make the recycling of the waste material in question economically viable, (ii) the technology necessary to turn the waste material into a recyclable product, (iii) the level of consumer participation and education necessary to effectuate the recycling plan, (iv) the role of local and state government in carrying out the plan, and (v) the role of private industry in supporting the plan. The report also described a two-part strategy which incorporates those elements. First, the plan should target those recyclables which will contribute the most toward reaching the recycling rate of 25 percent by 1995. Because paper and yardwaste constitute 60 percent of the waste stream, CIT focused on those materials when making its recommendation. Second, develop new technologies and markets for recyclables which includes close cooperation between the public and private sectors. CIT presented six recommendations to carry out the strategy:

- Enhance market mechanisms for recycling paper and paperboard products through the development of close working relationships with the paper industry, local governments, and the promotion of public/private partnerships.
- Enhance market mechanisms for recycling yardwastes by developing economic incentives for composting and by working closely with private and public organizations which can use or produce compost.
- Develop public/private programs and promote public/private partnerships as a means for providing the services and facilities needed to carry out recycling in a cost-effective and timely manner.
- Expand procurement of recycled materials by state and local governments through mandatory requirements and voluntary procedures which promote the substitution of products made with recycled materials in place of those made from virgin materials.
- Develop resources needed to administer a comprehensive state recycling program through actions which capitalize on the growing support of Virginians for environmental programs, such as recycling, and which foster full utilization of the Commonwealth's human resources.
- Promote the development of recycling technologies and prepare a recycling agenda for the future by forming a working group of state officials and representatives from the private sector which will assess technological and market issues involving recyclable materials; promote research, development and demonstration projects; and encourage consumer education and public/private partnership opportunities.

The study undertaken by the Department of Waste Management regarding procurement of recycled goods by agencies of the Commonwealth identified four major barriers to procurement:

- Lack of standards for recycled products. In its research, the Department determined that little consistency exists among state laws regarding the definition of recycling and recycled product specifications. "This lack of standard specifications for recycling is perhaps the single most important fact that must be overcome before widespread public procurement of recycled products can be achieved."
- Existence of federal incentives for virgin materials. Federal tax incentives for virgin materials have a detrimental effect on recycling, e.g., the depletion allowance. Very simply, a depletion allowance creates a tax deduction similar to depreciation. The allowances cover over 100 minerals, natural gas and petroleum, as well as exploration and development costs. The Tax Reform Act of 1986 reduced the amount of financing through exempt Industrial Development Bonds. The study found the recycling industry is at a disadvantage because increased recycling did not become a national objective, and the industry was unable to use the financing until after establishment of the funding cap under the Tax Reform Act.
- Lack of demand-side incentives. Demand-side incentives increase recycling levels through the creation of opportunities for manufacturers of recycled goods to be more competitive in the public sector market. Virginia has established several demand-side incentives such as a purchasing preference for recycled paper bought by state agencies. At the time the Department of Waste Management conducted its study, the incentives were fairly new and the agency was unable to evaluate their impact.
- Lack of training for procurement agencies and staff. The agency study found that many employees responsible for purchases are unfamiliar with recycled products and that without training the importance of purchasing recycled goods may be overlooked.

The study made several recommendations to overcome these barriers. First, an advisory committee should be established to evaluate the procurement issue. The committee would develop recommendations for modifying Virginia's procurement policies to allow increased purchasing of recycled goods and, at a minimum, should:

- Delineate the Commonwealth's recycling goals.
- Develop definitions of recycling and related terms which are consistent with national definitions.

- Conduct an analysis of demand-side incentives the Commonwealth is capable of initiating.
- Evaluate where responsibility should lie for execution of the various aspects of the Commonwealth's recycling program.
- Determine the success of Virginia's present recycling efforts.

Second, demand-side incentives should be established. The report stated:

[M]ost of the end markets for recycled products appear to be demand limited. That is, sufficient supplies of raw materials already exist and expansion of use of recovered materials relies on increased demand for end products. Many types of recycled paper and re-refined oil are examples of demand limited markets. In fact, in those markets the simple lowering of prices of raw materials has not historically resulted in increased consumption to any significant degree. Thus, when the market system is demand limited, financial incentives at the supply side will not be effective in creating new markets and recovery of subsequent materials from waste.<sup>4</sup>

The report went on to state that the current procedure whereby the EPA establishes procurement guidelines and the states follow them should be continued, but that Virginia should develop guidelines for products and materials not included in EPA's guidelines. Conjunctively, there should be a review of every agency's procurement procedures and specifications. Virginia should also require a contractor to certify that he used, to the extent feasible, products composed of recovered materials.

Third, enough time should be allowed for new and established recycling efforts to be fully implemented and accurately evaluated. Finally, the Commonwealth should consider participation with other states in regional purchasing programs. The result would be two-fold: (i) a regional program would be a more attractive market to manufacturers and (ii) the state participants will be able to procure recycled products at reduced prices through volume purchasing.

The M.I.D.A.S., Inc., study identified several obstacles to Virginia's success in recycling:

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<sup>4</sup> Promoting the Procurement and Use of Recycled Products by Agencies of the Commonwealth, Department of Waste Management, House Document 33, 1991, p.17.

- Inconsistent data available across the State due to the variability in collection and disposal systems operated by local governments or the private sector;
- The lack of coordinated programs for collecting facilities;
- The absence of facilities to process materials and the problems associated with siting facilities;
- An apparent lack of cooperation among political bodies in forming working relationships;
- A lack of understanding of the mechanics and economics of recycling; and
- Many short-sighted, special interest strategies which hinder needed long-range, comprehensive solutions.

The study made the following recommendations that would enable "Virginia to establish and develop the market for recyclable materials":

- A statewide comprehensive recycling/collection program, under the direction and control of the Department of Waste Management, should be mandated;
- The Department of Waste Management should be directed to develop a Master Plan including a timetable, for the statewide comprehensive recycling/collection program;
- An educational/marketing effort, administered by the Department of Waste Management, should be developed concurrently with the Master Plan and initiated a minimum of 12 months before the comprehensive program begins. Businesses involved in recycling should be encouraged to become active partners in the funding and execution of the educational/marketing effort;
- The Department of Waste Management should be responsible for the siting, permitting and approval of all facilities involved in the collection, sorting, processing or manufacturing of recyclable materials. Current siting regulations should be amended to be more flexible. No facility should be sited, permitted or approved that does not meet the requirements of the Master Plan;
- A state marketing center for recyclable materials should be established under the control, direction and management of the Department of Waste Management. The Center would be responsible for negotiating master contracts of all components included in the recycling/collection effort, as well



as being responsible for the sale and distribution of collected recycled materials;

- Existing recycling programs should be reviewed and modified, if necessary, to conform to the requirements of the Master Plan;
- A Task Force of governmental, industry, and consumer groups should be established as an "oversight" committee on intended or pending legislation relating to recycling. Members of the committee should have practical, hands-on knowledge and experience with recycling and manufacturing from recycled materials. Representatives of consumer/special interest groups should be knowledgeable of the issues and serve a demonstrably considerable constituency within the Commonwealth;
- An interdepartmental committee from government agencies, with direct and indirect involvement with recycling, should be established to eliminate or resolve potential problems or conflicts before they occur;
- The legislature should require all governmental agencies and departments to purchase products manufactured or produced from recycled materials, in preference to products not made with recycled material. Special preference and consideration should be required for Virginia-based companies manufacturing products from recycled materials; and
- The legislature should focus special attention on the newspaper industry in Virginia and require publishers to be responsible for resolving the volume of newsprint entering the waste stream--just as the aluminum and glass industries have done.

### **III. COMMITTEE DELIBERATIONS**

In the initial 1992 resolution (HJR 244) and the subsequent continuation resolution (HJR 466), the joint subcommittee was charged with developing recommendations to create or stimulate Virginia markets for recyclable materials. In formulating its recommendations, the joint subcommittee examined the efforts of both the public and private sectors in enhancing market development both within Virginia and nationally. The first year was devoted to (i) a review of the various state agency and regional recycling organizations on their recycling initiatives and (ii) receiving testimony from representatives of the numerous materials markets regarding their sector's capacity to use recyclable materials. In addition to the recommendations offered by persons who made presentations before the subcommittee, a separate hearing was held to receive suggestions from the public on ways to enhance Virginia's recycling markets.

The second year was to be a transition year in which the newly created Virginia Recycling Markets Development Council would assume the responsibility for developing measures aimed at enhancing recycling markets. It was envisioned that the two bodies would hold a joint meeting at which time the joint subcommittee would share its concerns with the Council and discuss potential policy options for market development. Regrettably, members of the Council were not appointed until after the joint subcommittee concluded its work. Had the Council been operational it would have had the benefit of the testimony that the subcommittee received on the experiences of local governments in accessing markets and model legislation being sponsored by other market development councils.

## **A. State Agencies Roles in Recycling and Market Development**

### **1. Department of Environmental Quality (DEQ)**

At its first meeting and during a subsequent 1993 meeting, DEQ officials provided an overview of recycling in Virginia. Under a 1989 solid-waste management law, localities were required to submit solid waste plans that documented their recycling rates. For 1991, 39 localities submitted individual recycling reports, with the remaining 289 jurisdictions submitting data on their rates as part of 56 regional plans. Based on these reports the Department estimated that the average recycling rate in Virginia in 1991 was 19 percent (see Appendix C-1). Of the eight localities which did not meet the mandatory 10 percent recycling rate, four were located in southwestern Virginia. In fact, the recycling rates in the southwest portion of the State were noticeably lower than the rates for other regions. This is due, in large measure, to the absence of markets within the region. Statewide, most of the recyclables collected were either metals (35 percent) or paper materials (33 percent) (see Appendix C-2). Ferrous scrap metal represented the single largest individual material collected. The high percentage of ferrous metal reflects the fact that 54 of the 95 plans included scrap metal auto bodies as material that was being recycled. DEQ determined that more than 50 percent of the almost two million tons of recyclable materials was generated by commercial and industrial sources. A DEQ annual survey of local governments documented an increase in all areas of program development (see Appendix C-3). Localities established more collection centers, more homes had access to curbside collection, and a wider variety of materials were collected. For example, in 1988, there were only 33 active recycling collection programs; by 1991, the figure increased to 109. Those initial programs collected only aluminum and newspaper; by 1991, programs collected the full range of recyclables. Between 1991 and the summer of 1993, the number of homes receiving curbside collection service more than doubled and the number of drop-off collection centers increased by 10 percent. Localities were also asked to provide information on program funding. The survey also indicated that, on the average, localities spent 12.2 percent of their solid waste

budget on the collection and marketing of their recyclables. Only 20 county, city, or town recycling programs are financed solely with general funds. Conversely, 22 localities do not use any general funds to operate their programs.

In the area of market development, DEQ maintains a markets data base and provides technical assistance to localities. The data base identifies 189 Virginia markets and 290 markets located outside Virginia which are either accessible to Virginia recycling programs, or have expressed an interest in finding additional suppliers within the State. The listings include both processors and end-use manufacturers. How markets are classified depends on the entity which has the recyclable material and for what purpose the recyclable material is used. For example, for a locality which has collected newspaper for reuse, the market would be the business who bales the papers and subsequently ships the paper to a manufacturer. For a collector and processor, the market is the end-use, that is, the manufacturer making the final product. Materials contained in the listing of markets include: aluminum, newspaper, mixed paper, corrugated paper, polystyrene, oil, container glass, plastics, metals, batteries, anti-freeze, yard waste, motor oil, oil filters, wood pallets and tires.

The agency also administers the market-development tax-incentive program which provides a 10 percent individual or business tax credit on the purchase price of recycling equipment. As of the fall of 1992, there were 103 applications for certification: 27 had been approved, 51 had been denied and 25 were pending. The total amount of tax credit which had been authorized was \$347,373.74. To be eligible for the credit, the equipment must be "process" equipment--equipment which prepares the material for use in manufacturing processes or process it as an end product.

DEQ has also been part of an effort by states in EPA Region III to develop regional markets. A market development work group, the Mid-Atlantic Consortium of Recycling and Economic Development Officials, has been established. Its goals are to identify market needs and to develop feasible and appropriate solutions for recycling a variety of materials. The group has undertaken two projects. The first is a directory of broker/intermediate processors that will incorporate existing documents generated by the states within the region. The second project will track the movement of recyclables throughout the region from generators through collectors, brokers, processors and end users. It will also involve an examination of transportation routes. While the initial projects will focus on data collection, the ultimate objective is to develop programs that stimulate the creation of regional markets.

## 2. Department of Economic Development (DED)

Although DED does not specifically target recycling businesses, it does provide a range of economic development services to the business community.

The Small Business Development Center Program provides management and technical assistance through its 19 offices located around Virginia. The program is jointly sponsored and funded by the State, federal government and local organizations. While recycling has not been the major focus of the program during 1991-1992, the program did work with 19 businesses engaged in recycling activities. It offered assistance in finding sources of funding, locating markets, expanding business, transferring technology, and locating recycling feed stock. The program's coordinator noted the barriers faced by recycling firms. The first is the availability of financing, which is particularly acute for a new business. As a new business, a borrower's lack of a "track record" makes financing difficult to secure. Second, recycling firms face problems with site location, due in part to environmental concerns of communities. A third barrier which has to be overcome, particularly by a recycling business, is the inconsistency in market demands for recycled products.

The Department also provides assistance through its industry services and marketing programs. The goal of industry services is to enhance the business climate in Virginia. This is done by aiding manufacturers in resolving problems they have identified in the course of regularly scheduled visits held with agency personnel. According to the program's manager the staff act as a liaison between the company and state agency. Specific assistance is given in helping companies with the permitting process and certifying equipment as eligible to receive the recycling tax credit. The marketing programs consists of two components: media advertising and regular mailings. Marketing managers discuss with potential and active business prospects how Virginia localities can meet specific business needs. Staff assists by providing information on potential site locations and funding services. The program is working with several recycling companies in evaluating the concentration and quantities of recyclable materials available as well as accessible markets.

### 3. Division of Purchases and Supply

The subcommittee received testimony on the Division of Purchase and Supply's new affirmative action procurement program. The program consists of four elements. The first is a preference for recovered materials which is reflected by (i) a general policy which provides for the procurement, where appropriate, of recycled products in its contracts and (ii) a specific 10 percent price preference for paper goods. The agency reviews the contract to identify any barriers which would disqualify a recycled product and then seeks to eliminate the barrier. The second element promotes the purchase of recovered materials by stating the agency's interest in recycled goods. The agency notifies the end-users (state agencies) of the products containing recycled content that can be obtained through the central warehouse. The program's third component, the certification process, requires bidders to certify the percentage of recovered materials on the product. Lastly, the agency conducts a review and

submits a report on the types of goods purchased, the content, price comparisons, the experience agencies had with the product, and includes any recommendations on the procurement of goods with recycled content.

## **B. Materials Markets**

In an effort to obtain information on the status of markets for various material, the joint subcommittee invited representatives of aluminum, glass, steel cans, plastics, paper and scrap metal sectors to discuss the market capacity for each recyclable material and potential impediments to market expansion.

### **1. Aluminum**

An official of Reynolds Aluminum Recycling Co. discussed the status of aluminum recycling. He indicated that the industry has more capacity to recycle than it is receiving in recovered material. The aluminum can recycling rate has grown from 50 percent in 1981 to 63 percent today. It is projected that 70 percent will be recycled by 1995. There is an extremely high demand for recovered aluminum, yet, there is still capacity to melt one million more pounds per year. Consequently, there is a great deal of room for expansion of aluminum collection.

### **2. Glass**

Significant progress has been made in the recycling of glass. Plants have increased their purchase of post-consumer cullet by 82 percent since 1987. The overall glass recycling rate grew from 22 percent in 1988 to 31 percent in 1991. A major factor in developing markets for glass is the location of the glass container plants. Of the 14 plants located in the region, six are in Pennsylvania, two in West Virginia, four in the Carolinas and only two plants are located in Virginia. Thus, recycling is easy if you are near the Danville or Williamsburg plants, but a little tougher if you are in Harrisonburg or Front Royal. Because of the small margins operating in the glass market, transportation becomes a crucial factor; the farther you have to transport material, the less profit. Members of the Mid-Atlantic Glass Recycling Program suggested that the best solution to this dislocation in Virginia's glass market would be the regionalization of collection and processing facilities.

If the glass industry is to continue using increased amounts of cullet, it will have to resolve the problem of contamination. To be recycled, used glass bottles and jars must meet the same standards of quality as the raw material they replace. Industry representatives are encouraged by the soon to be opened major glass processing unit just south of Richmond. This facility, operated by Cycle Systems will process cullet to remove the contaminants and prepare the crushed glass for the container plants' glass furnaces. The opening of this processing

operation is a major step forward because it will be an independent processor, not owned by any one company and therefore able to sell to any glass plant.

### 3. Steel Cans

A representative of the Steel Can Recycling Institute noted that, before any commodity is processed or sent to the consumer, an infrastructure must be established. The infrastructure in his industry's case includes collection or drop off centers as well as a method to get the material to a processing center. In 1990, there were only two processing centers for steel cans in Virginia. There are now 25. Sixty-six percent of the municipalities and counties with recycling programs collect steel cans. More effort is needed to encourage regional cooperation between counties because such cooperation makes accessing markets easier. The industry representative made the following recommendations for enhancing markets for all recyclable materials:

- Promote educational programs aimed at businesses as well as the general public;
- Create task forces to address the various recyclable commodity issues;
- Use tipping fees as a source of funding for grants to local government recycling programs; and
- Provide incentives for regional cooperation.

### 4. Plastics

Representatives of the American Plastics Council (APC) and the National Association for Plastic Container Recovery (NAPCOR) described for the subcommittee the recycling markets for plastics. APC promotes the recycling of six types of plastic resins, whereas NAPCOR focuses its efforts on PET. According to their testimony, Virginia is a relatively good location for developing markets for reclaimed plastics. Virginia is well positioned in the Mid-Atlantic region because of the presence of a sufficient number of reclaimers (i.e., those who actually clean the containers). After it has been washed it is ready to be processed into the end product. Nationwide, recycling plants are operating well below capacity. PET has the highest utilization capacity (72 percent) followed by HDPE (62 percent), LDPE (54 percent), polypropylene (54 percent), with the lowest utilization rate being polystyrene (24 percent). In the case of polystyrene, because of the low utilization rate, plants in Illinois and New Jersey are paying for transportation of this resin material.

Even though PET is experiencing a relatively high utilization rate, the NAPCOR representative indicated that PET collection still lags behind demand and that infrastructure is needed to sort, handle and process the material to ensure that it is clean. It is expected that the post-consumer PET market will

increase its demand from 285 million pounds in 1991 to 640 million pounds in 1993.

## 5. Paper

According to the American Paper Institute (API), approximately 29 million tons of paper were recycled in 1990. The largest source (46 percent) was old corrugated containers, followed by old newspapers (21 percent), mixed paper (12 percent), pulp (11 percent) and high grade deinking (10 percent) (see Appendix D). Technological advances have made recycling of paper easier resulting in three billion dollars being spent to further expand the capacity to handle recovered paper and turn it into usable material. Notwithstanding a public perception that there is a glut of old newsprint, a representative of API expressed a concern that there will be a shortage of old newsprint by 1995. While contaminants in newsprint present much less of a problem today than in the past because of a shift to new types of inks, some in the industry are worried that the current practice of some magazines to produce brightened colors in their copy may portend the presence of heavy metal contaminants.

The API spokesperson suggested that the markets for recycled paper could be enhanced by:

- Implementation of a clearinghouse on markets;
- Revising the regulatory structure in a way that treats paper as a commodity rather than a solid waste;
- Providing long-term transportation incentives; and
- Not imposing a sales tax exemption for products with recycled content.

As part of its review of the recycled paper market, the joint subcommittee asked officials of Bear Island Paper company to discuss their role in providing a market for old newspapers. Bear Island Paper Company is Virginia's only newsprint producer. It currently produces an average of 625 tons of high quality newsprint each day. The company has been producing newsprint since 1979, and its mill was the first ever designed to produce newsprint using a thermo-mechanical pulping process and southern pine. This process avoids the need to use chemicals, thus producing newsprint using mainly wood and water.

Though market conditions of the newsprint manufacturing business are not good, Bear Island will break ground for a newspaper recycling facility which should be operational by February 1994. The facility will cost about \$34 million, use as its raw material approximately 60,000 tons of old newspapers and magazines per year (20 percent of the tons generated in Virginia), and produce 125 tons per day of recycled fiber. It is anticipated

by company officials that by the end of 1993, all of the newsprint sheet which is produced will contain about 20 percent or more recycled content. Nationally, the number of recycled newsprint mills has increased from nine to 24 over the last three years, and 12 more mills are expected to begin operation by 1994. This will result in increasing the capacity of recycled newsprint to over nine million tons, four times what it was in 1989.

Mr. Robert A. Ellis, Assistant to the Vice President and General Manager of Bear Island Paper Company, emphasized that the best way to enhance markets for recyclables, and ultimately reduce the amount of solid waste that goes into landfills, is through voluntary industry efforts, like those discussed in the report of the Virginia Recycled Newsprint Advisory Task Force. He noted that during the last few years significant amounts of old newspapers have been removed from the waste stream. In 1991, about 52 percent of old newspapers were recovered and recycled. Today, according to the Environmental Protection Agency, 4.6 percent of the material in landfills is old newspaper, compared to eight percent in 1986.

The Virginia Recycled Newsprint Advisory Task Force, of which Mr. Ellis is a member, issued a report in 1991 which included the adoption of voluntary goals for the use of recycled newsprint. He informed the subcommittee that the state's newspapers have exceeded the 1992 goal of 15 percent recycled fiber. Asked to recommend measures that would enhance the markets for recycled newspaper, Mr. Ellis suggested the following:

- Newsprint issues should continue to be addressed through the task force approach. This represents an effective partnership of government, industry and consumers and has resulted in the increased use of recycled newsprint.
- Government should continue to take specific measures that help companies recycle, including tax credits and streamlining of the permitting processing.
- In order to ensure a usable product, local collection programs should "source separate" old newspapers and magazines.
- Unnecessary or harmful mandatory content laws should be avoided. The voluntary approach is working and the use of recycled newsprint has increased. There is no need for government intervention. Mills like Bear Island that do invest in recycling capacity should not be penalized by the passage of laws which set requirements higher than the retrofitted mills can produce.



## **6. Scrap Metal**

Three hundred fifty thousand to 400,000 tons of scrap metal are recovered in Virginia each year. No longer does the industry have to look for scrap; dealers are able to meet the demands of manufacturers for the material. A member of the Institute of Scrap Recycling Industries attributed the success of the scrap metal industry to a number of factors: (i) a product of equal quality can be made from scrap at a lower cost; (ii) the existence of a dependable market for scrap; and (iii) there is little loss when recycling scrap (i.e., one ton of scrap equals one ton of product). To ensure continued success, it was suggested that (i) metals used in products should be recycled, (ii) the use of recyclable materials should continue to be promoted, and (iii) the idea should be promoted that products made from scrap are of quality equal to those made from virgin material.

## **C. Local Government Recycling and Accessing Markets**

The recycling mandates placed on local governments has resulted in localities becoming significant players in the development of markets for recyclable materials. Because of this, it was important to have local officials discuss the operation of their programs and, specifically, their ability to access markets for recyclable materials. What follows is a description of the recycling/solid waste programs for a range of localities, from the small town of Farmville to the large urban County of Fairfax. The subcommittee was struck by their ingenuity and commitment to finding solutions to their solid waste problems, while ever mindful of the barriers which have to be overcome.

### **1. Farmville**

Farmville, with its population of approximately 6,550, has a budget of \$7.6 million and employs about 100 full- and part-time employees. The state mandate to reduce the solid waste stream, as well as the escalating costs of landfill operations, were significant factors in the Town developing a recycling program. Prior to 1991, the Town's waste management system consisted of garbage being picked up from houses and emptied into the Town's 44-gallon totes, which were shoulder-carried from house-to-house and ultimately dumped into trucks. Garbage pick-up was bi-weekly for residents and once a day for businesses.

In developing its recycling program, the Town modified the waste collection system and enacted an ordinance requiring businesses to recycle their cardboard. In May of 1991, Farmville started a residential and commercial roll-out system in which each household and business received a 90-gallon container. Residential containers were emptied weekly and containers used by businesses

were collected up to three times per week. Although the new system involved an upfront investment of \$215,000 for two new trucks and 2,500 90-gallon roll-out carts, the man-hours required for collection were cut by half, enabling the Town to dedicate additional resources to the implementation of a curbside recycling program. In August of 1992, Farmville started a 15 month phase-in of its voluntary, curbside recycling program. The program provides residents with recycling bags. The bags are collected at the curbside on two days, every other week. The materials collected are commingled and include glass (clear, brown and green), plastics, and aluminum. Newspapers and cardboard have to be bundled and placed in separate bags.

Having developed the capability to collect recyclables, the Town was faced with the prospect of processing and marketing the material. A partnership was established between the Town and a nonprofit organization (STEPS) which works with physically and mentally disabled persons. The Town collects and delivers recyclables to STEPS. The program then sorts, processes and markets all the recyclables for a fee of \$15 per ton for cardboard, \$.14 per pound for glass, and \$.25 per pound for plastics. These rates compare favorably to the \$25 per ton tipping fee at the Prince Edward County landfill.

Not only has the Town benefited from this relationship, STEPS has established itself in the recycling business and created 14 jobs for their clients. With an initial investment of \$42,000, STEPS purchased a building, fork truck, and a baler. As the program expanded, it leased aluminum processing equipment; constructed a 56' X 20' pad which is used for delivery, sorting and storage; and obtained grant funding to purchase a glass crusher, platform scale and loader. Each employee has been trained to separate such materials as corrugated board, newspaper, mixed paper, and plastics. STEP also operates a buy-back center which purchases aluminum cans from private citizens and localities. It was essential that their material be of the highest quality if STEPS was to gain access to potential markets. Therefore, the program had to begin processing the material in a manner most desirable to the end-use markets.

STEPS has been successful in identifying end-user markets for all of their processed goods, while also maintaining a presence in the secondary markets. Because of the low-level of contamination in their processed material, STEPS has been able to maintain its end-use markets; however, plastics and mixed paper still remain the most difficult materials to market. The combined efforts of STEPS and the Town of Farmville have resulted in a 44 percent reduction in the waste stream.

## 2. South Boston

South Boston with a population of 7,000 provides curbside recycling to approximately 2,600 residential households. The City exceeded the state's 1991

recycling mandate of 10 percent, by recycling 13 percent. The projected rate for 1993 is 16 to 17 percent. A significant portion of the 1993 recycling rate will reflect industrial collections. The City offers curbside pick-up for such materials as newspapers, magazines, three kinds of glass, two types of plastic, and aluminum. These materials were specifically chosen for recycling because of the presence of local markets. The City initially invested very little money in the program. Three employees and equipment from other parts of the City were used to move the materials to markets. In 1992, the end-users notified the City that they would no longer take the materials for free. A market in Lynchburg was identified which would take the materials but would not pay the City for the recyclables. The City bought a trailer to transport the materials 50 miles to Lynchburg. This summer the Lynchburg vendor informed city officials that he would no longer take mixed paper or mixed plastic. This has caused the City to sort its recyclables, storing # 1 plastic soda bottles and magazines until a suitable market is found. The program's staff is exploring the cost of purchasing balers and transport trucks, adding additional storage capacity, and establishing a joint recycling program with Halifax County. Since small localities do not have the resources to either identify markets or vendors, or keep abreast of changing markets, South Boston officials suggested that the State provide timely information about markets and assist in the creation of new markets for small communities.

### 3. Appomattox County

Appomattox County's solid waste program employs nine people who devote most of their time to operating the landfill and collecting garbage. Two staff persons have been used on an "as needed" basis to perform recycling activities. Since the operating budget for the recycling effort is only \$2,000, the recycling program generally has to be self-sufficient. The County's solid waste administrator discussed the strategies that have been adopted which have enabled the County to recycle 32 percent of its solid waste stream. Three years ago, the County began to examine the opportunities for recycling by looking at the components of its waste stream. They found that approximately 78 percent of the waste stream was either paper or plastics. The County focused on reducing the volume of these two materials by strategically placing front-end loader bins in the more populated areas of the County. Residents were made aware of the presence of these yellow recycling bins through notices in the newspaper and by direct contact by program staff with citizen groups and the schools. The bins are picked up four times a week and the materials are brought to the recycling center at the landfill and baled. Previously, plastics were simply dumped into a bay in the truck maintenance area where they were separated and picked up by a salvage broker who was paid \$100 per load. By acquiring a baler the program is able to sort the materials in a form that is attractive to other potential end-users and processors, thereby reducing the County's dependence on salvage brokers. Recently, a paper company began to accept the

County's mixed paper, high grade paper, and corrugated cardboard. Because of the quality of this material, the company transported the material, without charge, to its plant in Lynchburg. The program is entering its final phase with the purchase of a 50 x 50 recycling building and the acquisition of a new horizontal baler. This new baler is necessary to handle the increasing amount of paper and plastics being collected. Because of its small staff, the solid waste division utilizes prison labor in the baling and preparation of recyclable materials.

#### 4. Rivanna Solid Waste Authority

The Rivanna Solid Waste Authority serves a population of about 110,000 in Charlottesville and Albemarle County. The Authority operates the local landfill but does not collect garbage; that is done by private haulers in the county and the city public works department. The City operates a curbside program through a contract with Waste Management, Inc. The County is involved in a blue bag program in cooperation with a private hauler. The Authority operates the McIntyre Road recycling drop-off center in Charlottesville. Initially, the center was entirely staffed by volunteers. The Authority took over the operation in the fall of 1991. It is open everyday, for a total of 63 hours a week. It takes aluminum/steel cans, three colors of glass, newspapers, corrugated cardboard, and mixed paper. For fiscal year 1993, just under 3,000 tons of recyclable material were collected by the center. The center's operating costs total between \$70,000-\$80,000, of which \$30,000 has been allocated for site improvement. This equates to a recycling cost of \$24 per ton. There are three markets for the center's products. The Authority is looking at ways to improve its recycling operation, including establishing more centers. The County is also examining the possibility of expanding its program by placing a drop-off center at the landfill. The collection of recyclables is not a problem; however, getting them to market is not as easy. Primarily because of its relatively small population and the absence of heavy industry, no local markets have developed in the Charlottesville area. This has resulted in the Authority having to transport its materials to various markets. However, the transportation costs are not offset by the small amount of revenue received for the cardboard, aluminum and newspapers. The newspaper goes to a firm called American Environmental Products in the Culpeper area, where it is made into hydro-mulch. The cardboard and mixed paper goes to Bryant Salvage in Lynchburg, at a cost of \$100 per container (three to four tons). The metal cans and glass are taken by Coiners' Scrap Iron & Metal, Inc., in Charlottesville, which is the only local processor.

The Authority's director suggested that the materials could be marketed more cost effectively if the program had its own processing and warehouse facility. A consultant recently conducted a study examining the feasibility of establishing a materials recovery facility (MRF). He recommended that the operation of such a

facility be the responsibility of the private sector. For a MRF to be successful, the amount of recoverable material would have to be significantly greater than is currently being generated in the Charlottesville area. One possible option is to combine the recycling efforts of the member localities of the planning district (Fluvanna, Nelson, Louisa, and Green Counties).

Charlottesville's, Albemarle County's and the Rivanna Solid Waste Authority's programs recycled 5,683 tons between July 1992 and June 1993. The operational costs of the programs administered by the three governmental entities are in excess of \$600,000. In terms of landfill space, their efforts will allow the landfill to operate an additional 18.4 days per year or an additional year of operation, projected over the remaining life of the landfill. When asked what the state's role in market development should be, the Director of the Rivanna Solid Waste Authority recommended that the State provide the leadership and financial incentives needed to encourage regionalization, improve the system for transporting materials to markets, and increase the availability of end-use markets.

#### 5. Prince William County

Prince William County has a population of 230,000 and generates about 500 tons of trash a day. Trash collection in the County is done exclusively by private haulers. The County's recycling effort began in 1988 with a drop-off program. Currently, there are 29 drop-off locations. To promote curbside collection, the County has adopted a mandatory recycling ordinance that requires all haulers to offer curbside collection to all their customers, both business and residential. The materials collected include cans, newspaper, glass, and plastic #1 and #2 bottles. Businesses are required to collect the principal recyclable materials they generate. At the time the ordinance was enacted, there were three small processors located in the County. Shortly thereafter, they all went out of business, leaving the County in the position of having to provide storage space for materials collected by the private haulers. The program now has had to assume the costs of processing and transporting the materials to processors.

A 25,000 square foot storage facility was constructed at the landfill, at a cost of \$600,000. A baler was purchased to bundle the plastics and cardboard in order to reduce transportation costs. Finding a market for plastics has been difficult. Southeast Recycling will take mixed # 1 and # 2 plastics but charges a \$30 per-ton processing fee. Newspapers are hauled to Southeast Recycling in Fairfax County for processing. Although the County is paid five dollars per ton, this amount does not cover the hauling costs. While brokers continue to take the glass products, the County receives no money for the material.

The entire solid waste program is funded by user fees. A \$55 per-ton solid waste disposal fee is collected at the landfill. The fee includes an eight dollar

surcharge. The revenue generated by the surcharge is dedicated to funding the recycling programs. The County's annual budget for recycling is \$1.4 million which pays for the drop-off sites, materials processing, and public information. Although experiencing problems with finding reliable markets, the County has a recycling rate of 28 percent. According to a County spokesman, it is costing Prince William approximately \$50 per ton to recycle compared to a landfill fee of \$55 per ton.

## 6. Fairfax County

Fairfax County covers 400 square miles and has 826,000 residents who generate 835,972 tons of refuse each year. Thirty percent of the waste generated is being recycled. The County's recycling program began in 1987, and during the last six years it has evolved from a voluntary program, with mandatory white goods separation, to a comprehensive program affecting the commercial, institutional, governmental and residential sectors. The availability of a market determines whether a particular material has to be recycled. A mandatory residential recycling program collects newspapers, three colors of glass, steel, food and beverage containers, and appliances. Voluntary programs target such items as grass, cardboard, plastics, motor oil, batteries, Christmas trees, telephone books, mixed paper and magazines. The County's institutional and commercial recycling program was a cooperative effort of the business community and the County. If a business employs more than 200 people and generates more than 100 tons of refuse per year, it is required to recycle the principal material that it produces. The companies that are generating less than the threshold, but could economically recycle the material, are requested to voluntarily recycle.

A representative of Fairfax County emphasized that there are too few end-use markets. Most of the markets are out-of-state. County staff has been analyzing the types of incentives which would create more end-use markets. One strategy is the establishment of recycling enterprise zones. It would require the joint effort of state and local government to attract end-use manufacturers to areas where there are abundant supplies of recyclable materials. A locality would designate an area as a recycling enterprise zone and establish the appropriate zoning for recycling industries to locate in that area. Once these areas obtain the zoning, localities would develop an expedited process for plan approval. The locality would then apply to the State to have these areas declared recycling enterprise zones. Businesses which locate in state-designated recycling zones would be eligible to receive a variety of tax benefits over a five-to-ten-year period. Such benefits would be similar to those currently available under the economic enterprise zone program. The program would be administered by a policy board which would be responsible for developing eligibility criteria.

## **D. Rural Recycling: Market Development in Rural Areas**

In working to meet state recycling mandates, rural areas must deal with additional challenges not faced by urban areas: low population densities spread over large areas, rugged terrain, small tax bases, and in many cases significantly longer distances to access a market. The joint subcommittee received testimony on the rural perspective regarding recycling and the creation of markets from Ms. Pat Therrien of the Appalachian Regional Recycling Consortium. The Consortium consists of 21 counties and five cities, all located in southwest Virginia. Its goal is to develop creative and innovative approaches for providing efficient solid waste management in rural localities.

One possible response is in-market development which has the potential to create employment opportunities while at the same time promote environmentally acceptable economic development. Presuming a suitable market cannot be identified for material which a locality wishes to remove from the waste stream, Ms. Therrien suggested a strategy that entails (i) tapping the potential of existing industry, (ii) promoting small scale in-region, value added, end-use recycling market development and (iii) establishing local innovative alternative uses for materials. Many existing industries in rural Virginia have the potential to use recycled materials in their manufacturing process. Some have already responded to such opportunities by beginning to manufacture products which contain post-consumer and post-industrial recycled material. Others have thought about using recycled materials but are not sure where to begin, while still others have yet to consider the potential for using materials from the existing waste stream. The provision of technical assistance to local industries, as Ms. Therrien noted in her testimony, could provide these companies with the opportunity to modernize and upgrade their processing lines, enabling them to use recyclable materials in their manufacturing process. The Consortium is organizing recycling workshops, which will bring together experts from DEQ's Waste Minimization and Recycling Divisions, the Tennessee Valley Authority, the Southeast Waste Exchange, CIT, and the Department of Economic Development, to discuss with local companies such topics as potential uses of recycled materials, recycling equipment, incentive programs, Virginia's Recycling Equipment Tax Credit Program, low interest loans, Virginia's Business Modernization Program, waste minimization and waste exchange programs, and the available recyclable materials.

In those instances where there is insufficient existing industry in a region to utilize all the recyclable components of the waste stream, there may be an opportunity to promote the second element of the strategy--the development of small scale market development. The subcommittee was presented with a list of materials such as pressed glass and plastic lumber which could be used in small scale manufacturing production. Estimates provided to the subcommittee indicate that start-up costs for a pressed glass facility can range from \$200,000 for a 500-

pound-per-day operation to \$2.5 million for a 10-ton-per-day operation. Small scale is defined as two tons post-consumer cullet per day start up, with a maximum production of five-to-ten tons per day. A variety of products can be manufactured from pressed glass: glass tiles and blocks, tableware, roof lites, door and cabinet knobs, candle holders, containers, and stoplight lenses.

If the two previous approaches are not appropriate, a rural area might consider creative local uses for many components of the waste stream. For instance, the reuse of newspaper as animal bedding or pallets, and stumps and brush as mulch. A three-pronged strategy such as the one outlined by Ms. Therrien recognizes the difficulty that rural areas of the State are having in accessing recycling markets. The call for in-market development acknowledges the role that recycling can play in stimulating both local and regional economic development and, as such, merits further consideration.

### **E. Public Hearing**

The subcommittee held a hearing to receive comments from the public on ways to enhance end-use markets. Individuals representing a wide range of organizations testified or submitted written comments. The following is a summary of those remarks:

- Current state tax credits for recycling equipment have generated interest in the use of recycled materials, especially among foundries using steel can scraps.
- Tax breaks should be initiated for trucks hauling those recyclable materials which are processed/manufactured into end-use products.
- Industry representatives recommended that the content percentage of recycled materials utilized in a product should not be dictated by law. They point out that the real obstacles to the use of recycled materials in end-use products are in developing process technologies, identification of products, and obtaining acceptable product performance characteristics. A mandated content level will not, in itself, assist in overcoming these obstacles. In addition, opponents of mandated content noted that such a mandate could have a detrimental effect on the recycling industry since the initial impact will be higher prices and potential product performance problems. They pointed out the difficulty of marketing a material in different regions when content standards differ. Proponents of mandated content noted that 10 states already have such legislation. They stated that a 10 percent price preference is not sufficient to create the demand to open markets for post-consumer



materials. They recommend that mandates for all government agencies and their contractors should be set for general office and housekeeping supply purchases using EPA content criteria.

- The State should distinguish between recovered materials (recyclables which are separated from the solid waste stream) and solid waste and should not try to regulate recovered materials as they do solid waste. Recovered materials are commodities that do have value on the open market.
- The State should establish and fund a program that will provide technical assistance, education and encouragement to Virginia's businesses and industries in integrating post-consumer recycled materials into their raw material stream.
- The Virginia Recycled Newsprint Advisory Task Force recommended that the: (i) Virginia Waste Management Board should request the state's newspapers, through the Virginia Press Association, to conduct an internal survey of the industry's progress in achieving its goals for increasing the amount of recycled newsprint; (ii) Waste Management Board should be encouraged to formally recognize the industry for its willingness to assist in resolving the problems being encountered in the market for old newspaper; and (iii) Department of Economic Development should be encouraged to develop an assistance program for attracting industries to Virginia that utilize old newspapers in their manufacturing process.
- The State should encourage the reduction and recycling of packages through flexible mandates that provide manufacturers with various optional means to come into compliance.
- The State should encourage, if economically feasible, the use of recycled oil and lubricants in the state's vehicle fleet maintenance procedures.
- Quality raw materials are essential to market development. If the goal is to reduce solid waste going into landfills and achieve a high quality raw material that produces the most revenue, source separation programs can achieve that goal.
- When offering incentives, do not emphasize only those incentives which benefit new capacity; be fair and equitable to existing capacity. Implement realistic incentives that are based on diversion of materials from landfills.

- Education of the public will be necessary to promote use of recycled materials. Local government will need more financial assistance (grants and loans) from the State for promotion and program development.
- Incentives should be provided for the use of recovered materials rather than virgin material. Such incentives could include consumption tax credits or exemption from taxes for energy and fuel used in the manufacturing process.
  - Procurement of recycled goods should continue to be encouraged at the state level. The State should enact legislation which authorizes local governments to provide a 10 percent price preference for the purchase of recycled paper, similar to what is available at the state level.
  - The Virginia Association of Counties expressed support for the removal of the sunset on the \$.50 tire tax.
  - The feasibility of a centralized material-recovery facility to be utilized in rural areas should be examined.
  - Virginia should provide incentives to enhance regional cooperation among localities.
  - The State should establish recycling enterprise zones throughout Virginia. Such zones would permit each jurisdiction to determine if assistance is needed to attract recycling businesses to a particular area and provide incentives for the location of these businesses. Benefits in the form of special tax advantages would be available to a recycling company which either processes recyclable materials or manufactures raw materials from at least 30 percent recycled feedstock. The ultimate goal of such a program is the development of end-use markets which would locate in Virginia.

## **F. RENEWS and Model Legislation**

In November 1991, the Environmental Quality and Natural Resources Committee of the Southern Legislative Conference (SLC) passed a resolution establishing the Regional Environmental Network Enacting Waste Solutions (RENEWS) to address recycling and market development issues. Membership in the network consists of one legislator from each of the 16 SLC states and representatives from the executive branch, the southern Recycling Markets Council, and the environmental community. In March 1993, RENEWS secured a grant from

EPA to examine state efforts in market development. This grant became the vehicle to demonstrate how interstate cooperation can be an effective tool for developing markets for recyclables. RENEWS recently released a report, Recycling Market Development in the South, which provides an overview of recycling market development within SLC states and describes the various state programs as well as impediments to market development. In July 1993, taking the most effective elements of these programs, RENEWS developed a number of pieces of model legislation, six of which were subsequently endorsed by SLC. Mr. George Elder, a member of the advisory committee to RENEWS and one who played a significant role in formulating the model legislation, discussed both the process which led to adoption of the legislation and the individual measures. The package of model legislation relied, to a great extent, on the use of incentives as the means of enhancing recycling markets in the South. The model legislation includes:

- The Used Oil Collection Act is based on a proposal drafted by the American Petroleum Institute that would enable a state to establish and maintain public used oil facilities and programs. The program's goal is to increase the amount of used oil collected by having the state (i) promote the establishment of used oil collection programs, (ii) develop management standards for used oil collectors, transporters, and recycling, and (iii) promote education programs to make the public aware of the problems created by the improper disposal of used oil (see Appendix E).
- Reduction of Toxics in Packaging is based on a proposal of the Council of Northeast Governors (CONEG) which sets rates and dates for reducing the amount of toxic material (e.g., cadmium, chromium, and lead) in packaging. Similar legislation has been adopted in Florida and Georgia (see Appendix F).
- The creation of a State Recycling Market Advisory Council is to assist in the development of markets for recovered materials and products with recycled content. Membership on the Council would include those entities both public and private which have a vested interest in recycling (see Appendix G).
- Regulation of Recovered Material ensures that solid waste and interstate transport of solid waste are structured in a way that recovered material (i.e., source separated or diverted recyclables), which is nonhazardous, is not adversely affected. Virginia laws and regulations currently treat recycling as a process which starts with an individual disposing of material by placing it into the waste stream where it is ultimately recovered for its recycling potential. However, recyclable material should not be considered solid waste and the proposed legislation supports recycling market development by excluding recovered material from the health, safety and welfare regulations which are placed upon solid waste. A key provision of this model legislation stipulates that ownership of recovered material is transferred to the operator

of a curbside or containerized recovered materials collection program at the time when the recovered materials are placed into the container or at a specific location for collection (see Appendix H).

- State Agency Procurement of Recovered Material has been initiated by many states and takes the form of establishing an aggregate goal for paper purchases, price preferences, and the elimination of barriers to the use of certain recyclable materials (see Appendix I).
- The Recycling Market Development Incentives Act provides financial incentives through tax credits to manufacturers who currently produce, or who are willing to expand their capacity to produce, products with recycled content. This act seeks to establish a "level playing field" between new and existing capacity by providing (i) optional credits against income tax for expansion of recycling capacity or (ii) a solid waste diversion tax credit against the sales and use tax for existing recycling facilities. It also provides an exemption from local property taxes for recycling facilities (see Appendix J).

In addition to his role with RENEWS, Mr. Elder was also a member of the Florida Recycling Markets Advisory Committee (RMAC) and in that capacity was requested by the joint subcommittee to discuss the work of the advisory committee. RMAC is made up of representatives of the public and private sectors and coordinates policy and overall strategic planning for developing new markets and expanding and enhancing existing markets for recovered materials. Specifically, the advisory committee is charged with:

- Developing new markets and expanding and enhancing existing ones;
- Pursuing expanded end-uses for recyclable materials;
- Targeting materials for concentrated market development efforts;
- Developing proposals for new incentives for market development, particularly focusing on targeted materials;
- Providing guidance on permitting, finance options, research and development, grant program criteria, and other issues relative to market development; and
- Coordinating the efforts of various government entities with market development.

Over the last five years it has identified 18 issues, 10 of which were addressed through new state laws including the use and disposal of compost and yardwaste

from landfills, procurement, flow control of recovered material, and a sales tax exemption on the purchase of machinery and equipment used for processing recyclable materials.

## IV. FINDINGS AND RECOMMENDATIONS

### A. Subcommittee Recommendations for 1993 Session

During its first year, the joint subcommittee received testimony from a vast array of speakers representing both the private and public sectors. Having received testimony on a variety of demand-and-supply side measures for enhancing the market for recyclable materials, the joint subcommittee recommended eight pieces of legislation for consideration by the 1993 Session of the General Assembly.

#### 1. Procurement Practices

Government, because it is such a large purchaser of products and material (federal, state and local government purchases account for about 20 percent of the Gross National Product), can be a major factor in strengthening and creating markets for recyclables.<sup>5</sup> Virginia has established through its procurement practices demand side incentives to recycled product manufacturers. Incentives, such as a price preference for paper products made with recycled content, are designed to increase recycling levels through the creation of opportunities for manufacturers of recycled products to be more cooperative in the public sector market. The joint subcommittee proposed three measures which broaden the state procurement policies to allow for the purchase of more recycled products.

**Recommendation #1: That the General Assembly provide for, in the case of a tie bid, a procurement preference for those products which contain the greatest amount of recycled content (HB 1606, see Appendix K). Existing law gives preference, in instances of tie bids, to goods, services, and construction produced in Virginia or provided by Virginia persons, firms or corporations. This bill, with respect to goods only, would give a preference based on the amount of recycled content only after existing price preferences have already been taken into account.**

**Recommendation #2: That a resolution be passed expressing the sense of the General Assembly that governmental agencies and private entities using governmental funds should procure products containing materials with post-consumer recycled content and that special consideration should be given to**

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<sup>5</sup> Recycling Markets, Marketing and Market Development, EPA, 1993, p. 45.

recycled content products of Virginia-based companies or which utilize recovered material processed by Virginia-based companies (HJR 465, see Appendix L).

**Recommendation #3:** That the General Assembly enact legislation allowing any person to petition the Department of General Services or any state agency to have a product with recycled content included in the procurement process (HB 1604, see Appendix M). Under this bill, a person who believes that particular goods or products with recycled content are functionally equivalent to the same goods or products produced from virgin material has the right to petition the agency to include the good or product in its procurement process. The petitioner would have to submit documentation which establishes that the product contains recycled material and meets the procurement specifications. If the Department or state agency finds it meets the criteria, the recycled product would then be incorporated into the agency's procurement process. A second provision in the legislation requires all state agencies to review and revise their procurement procedures to encourage the use of goods with recycled content. The need to ensure access to the procurement process was demonstrated in testimony before the subcommittee. In one instance, a manufacturer testified that he attempted to bid on a federal contract to supply rigid insulation. Even though his product contained 50 percent recycled material and was capable of meeting the performance criteria, it did not meet the bid specifications and therefore, absent a petition provision, was excluded from the bidding process. While this situation occurred within the federal procurement system, apparently a similar procurement barrier exists in Virginia. A Department of Waste Management report entitled Promoting the Procurement and Use of Recycled Products by Agencies of the Commonwealth calls for the establishment of " . . . a system for allowing the private sector to petition the procuring state agencies to substitute recycled products for products currently being purchased that are made from virgin materials . . ." <sup>6</sup> The report suggests that, if the entrepreneur met the burden of proof, the burden would then shift to the government procuring agency to prove that a recycled product could not perform the same functions in the same manner as the product made from virgin materials. "If the state failed to meet the burden, it would be

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<sup>6</sup> Promoting the Procurement and Use of Recycled Products by Agencies of the Commonwealth, Department of Waste Management, 1991, p.17.

required to purchase the recycled product subject to any pre-established budget or price preference restrictions."<sup>7</sup>

## 2. Waste Tires

In Virginia, waste tire piles ranging in size from 100 to 4.9 million tires are scattered through Virginia. A 1993 U.S. Army Corps of Engineers study documented the existence of 731 tire piles containing an estimated 17.6 million tires. The estimated clean-up costs of these tires are over \$35 million. Each year approximately four million new tires are sold, all which could eventually become part of the waste stream. Currently, only about one quarter of the newly generated tires can be addressed through existing disposal systems. Recognizing the scope of the problem, the General Assembly in 1990 authorized the Department of Waste Management to "develop and implement a plan for the management and transportation of all waste tires in Virginia" (§ 10.1-1422.1). The plan included a strategy to deal with the current flow as well as the abandoned tires by awarding contracts for the shredding and processing of waste tires. Funds would also be expended to (i) enhance compliance and enforcement activities, (ii) provide education and training of local fire officials, and (iii) pay program administration costs. The program was financed through a 50 cent tax on the sale of new tires. The tax is collected and remitted quarterly by tire retailers. A sunset date of December 31, 1994, was placed on the tax, which gave the legislature a sufficient period in which to judge whether the program's results justify the continued imposition of the tax.

The joint subcommittee acknowledges the fact that the tire tax will not generate enough revenue to properly dispose of Virginia waste tires. However, there is opportunity to address the tire problem by enhancing the financial attractiveness of waste tires as a recyclable commodity. Several states and Canadian provinces have established a partial reimbursement system for those companies or individuals who are willing to remanufacture these tires into a new product or use them as feedstock for resource recovery projects (burning for energy). The State of Oregon has successfully operated such a partial reimbursement program since 1987. The program is financed through a one dollar tax placed on each tire sold in the state. That money is used to reimburse end-users in an amount between one-to-five cents per pound depending on how the tire is to be used. Typically, projects which use the tires as material for energy recovery are paid at the rate of one cent per pound. Those who process the tire into a remolded new rubber product are reimbursed five cents per pound. By focusing on end-use, the state has ensured that these tires will not be subsequently disposed of in landfills in the form of chips or shredded tires. The Oregon program has been effective to the extent that enough markets have been created for waste tires that an infrastructure now exists to handle the current

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<sup>7</sup> Ibid., p.17.

flow of waste tires. Therefore, to stimulate private sector involvement in providing solutions to Virginia's waste tire problem and at the same time promote the use of waste tires by enhancing markets for waste tires, the joint subcommittee proposed:

**Recommendation #4: That the purposes of the Waste Tire Trust Fund be expanded to include the payment of a partial reimbursement to end-users of waste tires (HB 1494, see Appendix N).** The proposed legislation authorizes DEQ to spend up to 75 percent of the prior year's tire tax collections on end-user reimbursement. End-users are those persons who utilize the heat content or other forms of energy from the incinerator or pyrolysis of waste tires or who use waste tires or chips to make a product of economic value. A person who produces tire chips or similar materials and gives or sells them to another person is not an end-user. The types of uses eligible for partial reimbursement, the procedures for applying for reimbursement, and the amount of the reimbursement are to be established through the regulatory process. Finally, the proposed measure removes the sunset clause so that the tax on tires will continue beyond December 31, 1994.

### 3. Recycling Tax Credits

As noted earlier, the goal of tax incentives is to encourage the private sector to install new, or retrofit existing, machinery with components that will increase a business's capacity to process or manufacture recycled goods. The granting of a tax credit by the State for the installation of such equipment provides an incentive for increasing the demand for recyclable materials. In 1990, the General Assembly enacted legislation which allows both individuals and corporations to take a 10 percent tax credit for machinery and equipment used in manufacturing facilities or plants which manufacture, process, compound, or produce recycled items of tangible personal property. The total credit allowed in any taxable year cannot exceed 40 percent of the tax liability, but the credit may be carried over in five succeeding taxable years until the total credit amount is used. While this credit represents a useful tool in the development of markets, it is somewhat limited in its application. The credit can only be taken on equipment which exists in a fixed location and cannot be applied to movable equipment. The credit is taken on the amount paid for the equipment or machinery itself and does not include capitalized costs. Finally, the credit is available through 1994. Because of the current limitations of the credit, the joint subcommittee proposed:



**Recommendation #5:** That the General Assembly enact legislation which broadens the application of the individual and business tax credit for the purchase of machinery and equipment used to produce recycled products (HB 1865, see Appendix O-1). The joint subcommittee's proposal would allow an individual or corporation to take a credit on the "purchase price paid," which includes both the actual costs of the hardware plus the costs of installation. The credit would also be available for basic research expenses related to development of technology, including software, (i) used in the recycling machinery or (ii) which will enhance the applications of recovered material in products with recycled content. The bill would remove the requirement that the equipment or machinery be at a fixed location, which benefits rural operators and regional recycling cooperative programs. The final provision of the proposed legislation removes the 1994 sunset date, thereby giving more assurance to those contemplating the purchase of such equipment that a credit will be available regardless of when they make their investment.

#### 4. Recycling Markets Development Council

Although many recycling-related activities are being undertaken in Virginia, no mechanism exists to coordinate the various efforts. One means of bringing key recycling industry representatives and government officials together in a private-public partnership is the establishment of a recycling market development council. Such an entity can be either an advisory or policy-making body that provides a forum for consensus-building in the areas of recycling and market development. Individual council members typically act as liaisons to state agencies and material markets sectors. In a number of states, councils are given responsibility for developing a marketing program for recycling, identifying factors which are barriers to the manufacturing of products made from recyclable material, and promoting the use of these materials. Such a market development entity does not exist in Virginia. Therefore, the joint subcommittee proposed:

**Recommendation #6:** That the General Assembly authorize the establishment of the Virginia Recycling Markets Development Council (HB 1605, see Appendix P). The Council would be composed of 19 members representing state, regional and local government and the various material sectors. The Council would:

- Promote and coordinate state agencies' and authorities' efforts to enhance markets for recycled or recovered materials;
- Promote the purchase of products made from recycled or recovered materials;
- Identify and evaluate financial and other incentives which would attract new businesses that can use recycled or recovered materials generated in Virginia;
- Identify barriers to the development of markets for recycled materials including existing state policies, regulations and procedures and to recommend alternatives to overcome such obstacles;
- Develop recommendations for the establishment of a regional or interstate marketing system for recycled materials;
- Encourage the use of uniform recycling definitions and standards throughout the State;
- Promote and encourage public/private market development initiatives; and
- Report annually its findings and recommendations to the Governor and the General Assembly.

Additionally, the Council is charged with developing a plan to strengthen Virginia's recycling infrastructure and markets which will (i) improve the supply and quantity of recyclables; (ii) expand the capacity of collectors, processors and manufacturers; and (iii) increase the use of specific materials.

##### 5. Promoting Pulp and Recovered Newsprint Industries

Approximately 15 percent of the estimated 382,000 tons of newsprint generated in the Commonwealth is recycled each year. Even with the expansion of the Bear Island Paper Company's facility, approximately 65 percent of newsprint generated in the State will not be recycled here. Recognizing the potential market that exists for recovered newsprint, the joint subcommittee proposed:

**Recommendation #7: That the General Assembly express its interest in the Department of Economic Development continuing**

to assist existing industries and to attract new ones to Virginia that (i) utilize old newsprint in their manufacturing processes or (ii) convert old newsprint into usable pulp (HJR 487, see Appendix Q). The location and expansion of such facilities within the Commonwealth would benefit Virginia's economy and at the same time avoid the costly alternative of disposing of this material in the state's landfills.

#### 6. Continuation of Study

During its first year, the joint subcommittee examined many of the issues cited in the authorizing resolution by reviewing (i) trends for recycled material markets in the Mid-Atlantic region, (ii) legislation enacted by other states to stimulate markets for recycled materials, (iii) current state government efforts to promote the use of recyclable materials, and (iv) proposals from a variety of individuals and interest groups to enhance markets for recyclables. Even though much had been accomplished, several issues still needed to be addressed. Therefore, the joint subcommittee proposed:

**Recommendation #8: That the General Assembly authorize the joint subcommittee to continue to examine ways to enhance recycling markets; review the progress made by Virginia localities and private industry in developing recyclable material collection, processing and marketing infrastructure; and evaluate the need for standards pertaining to environmental marketing claims (HJR 466, see Appendix B).**

#### **B. 1993 Legislative Actions**

The 1993 Session of the General Assembly considered the legislative package recommended by the joint subcommittee and passed seven of the measures in substantially the form they were introduced, making only minor technical amendments to several. The one measure which was significantly amended before its passage was the tax credit on recycling equipment (HB 1865). While the legislature approved the provisions which broadened the definition of "purchase price paid to include installation costs," and allowed the credit to be applied to mobile equipment, it rejected the tax credit for recycling-related research and development. Rather than remove the sunset on the tax credit, the legislature extended by one year the time frame for which the credit would be available (from the 1994 taxable year to the 1995 taxable year) (see Appendix O-2).

## C. Subcommittee Recommendations for 1994 Session

### 1. Recycling Markets Development Council

With the approval of legislation creating the Virginia Recycling Markets Development Council, the joint subcommittee envisioned 1993 as a transition year in which the new council would assume primary responsibility for examining ways to enhance markets for recyclable materials. It became apparent to members of the joint subcommittee that several topics needed to be explored further by the Council. The joint subcommittee, therefore, proposed:

**Recommendation #1:** That the Virginia Recycling Markets Development Council, in fulfilling its legislative mandate, should (i) develop and adopt a mission statement, (ii) appoint a liaison to coordinate the work of the Council and the EPA-funded recycling and economic development study being conducted by the Institute for Local Self-Reliance, (iii) review current statutory recycling mandates to determine whether the percentage goals should continue to be uniform statewide or reflect jurisdiction-specific circumstances and whether emphasis should continue to be placed on recycling goals rather than source reduction and reuse efforts, (iv) review model legislation endorsed by RENEWS, and (v) conduct an examination of the recycling enterprise zone concept (HJR 67, see Appendix R).

### 2. Basic Research Tax Credit

Although the 1993 Session of the General Assembly rejected the concept of providing tax credits for recycling-related research and development, the joint subcommittee still believes that such a policy can be an effective demand side approach for enhancing markets for recyclable products and proposed:

**Recommendation #2:** That the General Assembly allow a 10 percent tax credit for basic research expenses expended for the development of technology intended (i) for application in producing machinery and equipment to manufacture, process, compound, or produce recycled products or (ii) to enhance the application of recovered materials in products containing recycled content (HB 325, see Appendix S).

#### **D. 1994 Legislative Actions**

The 1994 legislation recommended by the joint subcommittee met with mixed results. House Joint Resolution 67, requesting the Virginia Recycling Markets Development Council to examine certain measures which enhance the use of recycled materials, was passed. The tax credit for basic research (HB 325) was carried-over by the House Committee on Finance. Having completed its two year study of recycling markets, the subcommittee looks forward, with anticipation, to the Council's further examination of the various ways to enhance markets for recyclable materials.

Respectfully submitted,

Delegate Kenneth R. Plum, Chairman

Delegate John Watkins, Vice Chairman

Delegate Mitchell Van Yahres

Delegate John J. Davies III

Senator Joseph V. Gartlan, Jr.

Senator Madison E. Marye

Keith Buttleman

Brenda Harmon

Trist B. McConnell

Robert F. Pecht III

Betty Byrne Ware

## **APPENDICES**



**APPENDIX A**  
**1992 SESSION**  
**ENGROSSED**

HP4144484

**HOUSE JOINT RESOLUTION NO. 244**

House Amendments in [ ] - February 9, 1992

*Establishing a joint subcommittee to study and develop recommendations on legislative actions necessary to create or enhance end-use markets for recycled materials collected in the Commonwealth of Virginia.*

Patrons—Watkins, Abbitt, Byrne, Callahan, Cantor, Connally, Council, Cox, Cranwell, Cunningham, R.K., Dickinson, Dillard, Forbes, Giesen, Ingram, Jackson, Marshall, Martin, Morgan, Moss, Murphy, Nelms, O'Brien, Orrock, Parker, Parrish, Plum, Purkey, Quillen, Rhodes, Thomas, Van Yahres, Wardrup, Way, Wood and Woodrum; Senators: Bell, Calhoun, Earley, Gartlan, Hawkins, Lambert, Marsh, Quayle, Wampler and Woods

Referred to the Committee on Rules

WHEREAS, the General Assembly passed House Joint Resolution 292 in 1987, which established a joint subcommittee to study alternatives for improving waste volume reduction and recycling efforts; and

WHEREAS, this study commission recommended that the General Assembly require localities to implement recycling programs; and

WHEREAS, the General Assembly passed HB 1473 in 1989, which established mandatory recycling goals for all units of local governments and directed the Virginia Waste Management Board to promulgate regulations to implement HB 1473; and

WHEREAS, the Virginia Waste Management Board adopted VR 672-50-01, which became effective on May 15, 1990, and which required local governments to develop and implement a plan to achieve a recycling rate of (i) 10 percent of the total household wastes and principal recyclable materials generated from nonhousehold sources by December 31, 1991, (ii) 15 percent of the total household wastes and principal recyclable materials generated from nonhousehold sources by December 31, 1993, and (iii) 25 percent of the total household wastes and principal recyclable materials generated from nonhousehold sources by December 31, 1995; and

WHEREAS, local governments and regional public service authorities are developing recyclable material collection systems in response to the state recycling mandates; and

WHEREAS, recycling markets in the Mid-Atlantic region are becoming depressed by the growing glut of recyclable materials collected from local and regional recycling programs throughout the Commonwealth developed in response to the state mandates; and

WHEREAS, other states have passed legislation to assist local recycling efforts by creating or enhancing markets for recycled materials through such incentives as mandatory recycled content in manufactured goods, tax incentives for the use of recycled goods, establishment of recycling enterprise zones, and mandatory public procurement of specified amounts of recycled products; and

WHEREAS, the Department of Waste Management has recognized the importance of recycling market development through the work of the former Division of Litter Control and Recycling; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That a joint subcommittee be established to develop recommendations on legislative actions necessary to create or stimulate Virginia markets for recyclable materials. This subcommittee shall develop such recommendations for the Department of Waste Management and other affected state agencies through: (i) review of the progress made by Virginia localities and private industry in developing recyclable material collection, processing and marketing infrastructure in response to state legislative mandate, (ii) review of the historical and projected trend for recycled material markets in the Mid-Atlantic region, (iii) review and evaluation of legislation enacted by other states to respond to the need to stimulate markets for recycled goods, (iv) review and evaluation of existing state legislation, regulation or administrative practice which may serve as an impediment to establishing or



1 expanding a market for recycled goods in Virginia, (v) review and evaluation of efforts to  
 2 assist industrial expansion within and attract new industry to the Commonwealth where the  
 3 industries affected would create new demand for difficult-to-market recyclable materials, [  
 4 and ] (vi) examining proposals to increase state and local government procurement of  
 5 recycled goods, including a review of price preference and mandatory content requirements  
 6 in products used in the public sector [ , and (vii) conducting a survey of existing Virginia  
 7 industries to determine what types, and volumes of raw (virgin and recycled) materials are  
 8 used ] .

9 The joint subcommittee shall be composed of 11 members to be appointed in the  
 10 following manner: four members of the House of Delegates, to be appointed by the  
 11 Speaker; two members of the Senate, to be appointed by the Senate Committee on  
 12 Privileges and Elections; three citizen members representing consumer, local government  
 13 and business community interests, respectively, to be appointed by the Governor; one  
 14 member shall be the Executive Director of the Department of Waste Management or his  
 15 designee and one member shall be a representative of the Virginia Department of  
 16 Economic Development to be appointed by the Governor.

17 State agencies shall provide such assistance as is needed for the work of the joint  
 18 subcommittee.

19 The joint subcommittee shall complete its work by November 15, 1992, and submit its  
 20 findings and recommendations to the Governor and the 1993 Session of the General  
 21 Assembly as provided in the procedures of the Division of Legislative Automated Systems  
 22 for the processing of legislative documents.

23 The indirect costs of this study are estimated to be \$11,490, the direct costs of this  
 24 study shall not exceed \$7,920.

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

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Official Use By Clerks	
<b>Agreed to By</b> <b>The House of Delegates</b> without amendment <input type="checkbox"/> with amendment <input type="checkbox"/> substitute <input type="checkbox"/> substitute w/amdt <input type="checkbox"/>	<b>Agreed to By The Senate</b> without amendment <input type="checkbox"/> with amendment <input type="checkbox"/> substitute <input type="checkbox"/> substitute w/amdt <input type="checkbox"/>
Date: _____	Date: _____
Clerk of the House of Delegates	Clerk of the Senate

**APPENDIX B**  
**1993 SESSION**

LD9111408

**HOUSE JOINT RESOLUTION NO. 466**

Offered January 21, 1993

*Continuing the Joint Subcommittee on Enhancing End-use Markets for Recycled Materials.*

Patrons—Plum, Almand, Davies, Nelms, Quillen, Van Landingham, Van Yahres and Watkins;  
Senators: Gartlan and Howell

Referred to the Committee on Rules

WHEREAS, the 1992 Session of the General Assembly passed HJR 244 establishing a joint subcommittee to study ways to create or enhance end-use markets for recycled materials collected in Virginia; and

WHEREAS, the Joint Subcommittee examined many of the issues contained in the resolution, including a review of (i) the historical and projected trends for recycled material markets in the Mid-Atlantic region, (ii) legislation enacted by other states to stimulate markets for recycled goods, (iii) existing state legislation, regulations or administrative practices which may be barriers to establishing or expanding markets, and (iv) proposals to increase state and local government procurement of recycled goods; and

WHEREAS, the Joint Subcommittee formulated a number of legislative proposals to enhance the market for recycled materials and goods, which will be introduced during the 1993 Session of the General Assembly; and

WHEREAS, because of the complexity of the issues surrounding the development of markets for recycled material, the Joint Subcommittee has been unable to consider fully all matters within its charge and has agreed that another year of study is necessary; now, therefore, be it

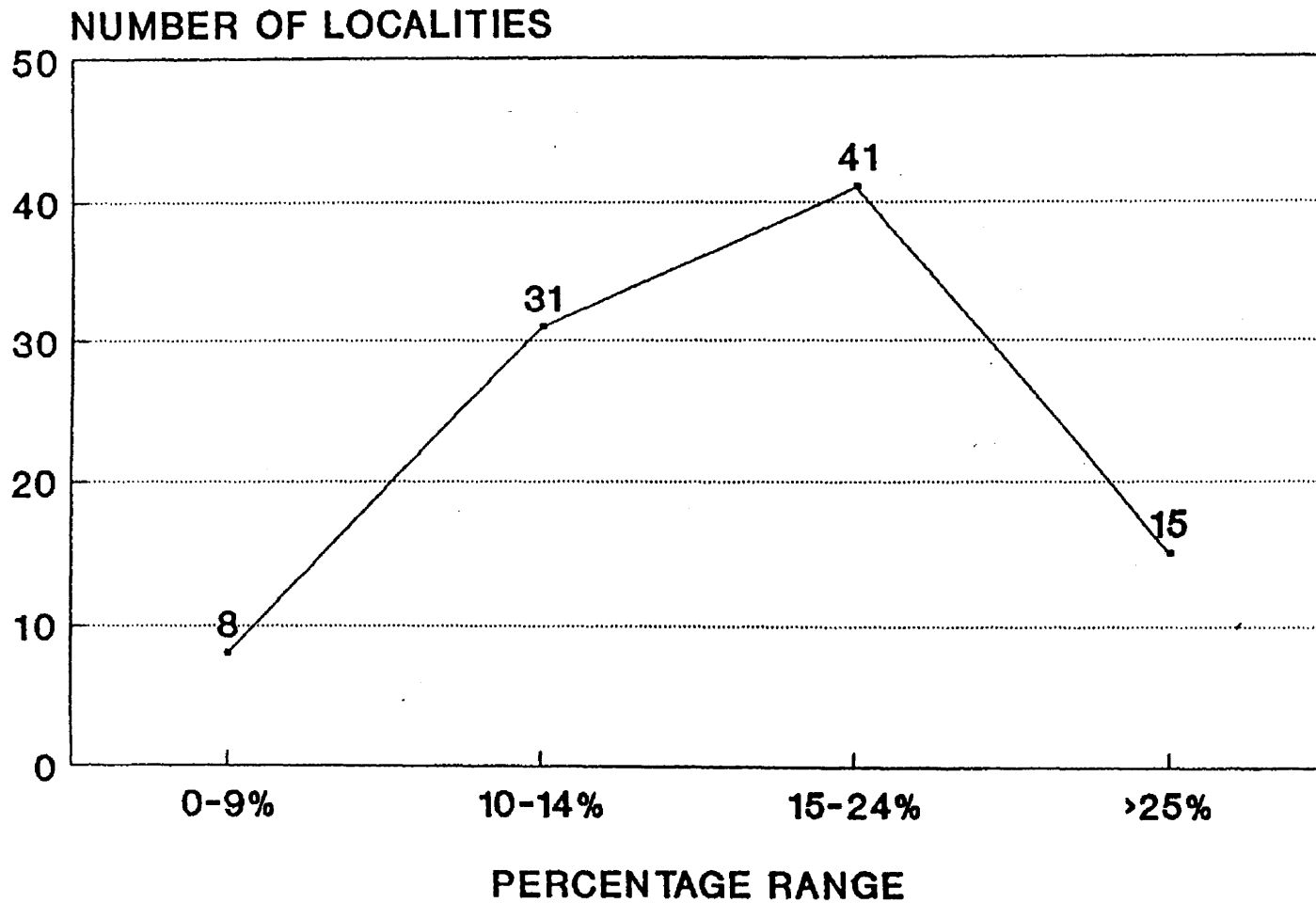
RESOLVED by the House of Delegates, the Senate concurring, That the Joint Subcommittee on Enhancing End-use Markets for Recycled Materials be continued. The Joint Subcommittee shall continue to examine ways to enhance recycling markets; review the progress made by Virginia localities and private industry in developing recyclable material collection, processing and marketing infrastructure in response to state legislative mandates; and evaluate the need for standards pertaining to environmental marketing claims. The Joint Subcommittee shall also monitor the activities of the Virginia Recycling Markets Development Council during the Council's initial year of operation. The current membership shall continue to serve.

The Joint Subcommittee shall complete its work in time to submit its findings and recommendations to the 1994 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 \$11,070; the direct costs of this study shall not exceed \$7,920.

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

# 1991 LOCAL GOVERNMENT RECYCLING RATES



VADWM 3/30/93

**APPENDIX B**  
**1993 SESSION**

LD9111408

**HOUSE JOINT RESOLUTION NO. 466**

Offered January 21, 1993

*Continuing the Joint Subcommittee on Enhancing End-use Markets for Recycled Materials.*

Patrons—Plum, Almand, Davies, Nelms, Quillen, Van LANDINGHAM, Van Yahres and Watkins;  
Senators: Gartlan and Howell

Referred to the Committee on Rules

WHEREAS, the 1992 Session of the General Assembly passed HJR 244 establishing a joint subcommittee to study ways to create or enhance end-use markets for recycled materials collected in Virginia; and

WHEREAS, the Joint Subcommittee examined many of the issues contained in the resolution, including a review of (i) the historical and projected trends for recycled material markets in the Mid-Atlantic region, (ii) legislation enacted by other states to stimulate markets for recycled goods, (iii) existing state legislation, regulations or administrative practices which may be barriers to establishing or expanding markets, and (iv) proposals to increase state and local government procurement of recycled goods; and

WHEREAS, the Joint Subcommittee formulated a number of legislative proposals to enhance the market for recycled materials and goods, which will be introduced during the 1993 Session of the General Assembly; and

WHEREAS, because of the complexity of the issues surrounding the development of markets for recycled material, the Joint Subcommittee has been unable to consider fully all matters within its charge and has agreed that another year of study is necessary; now, therefore, be it

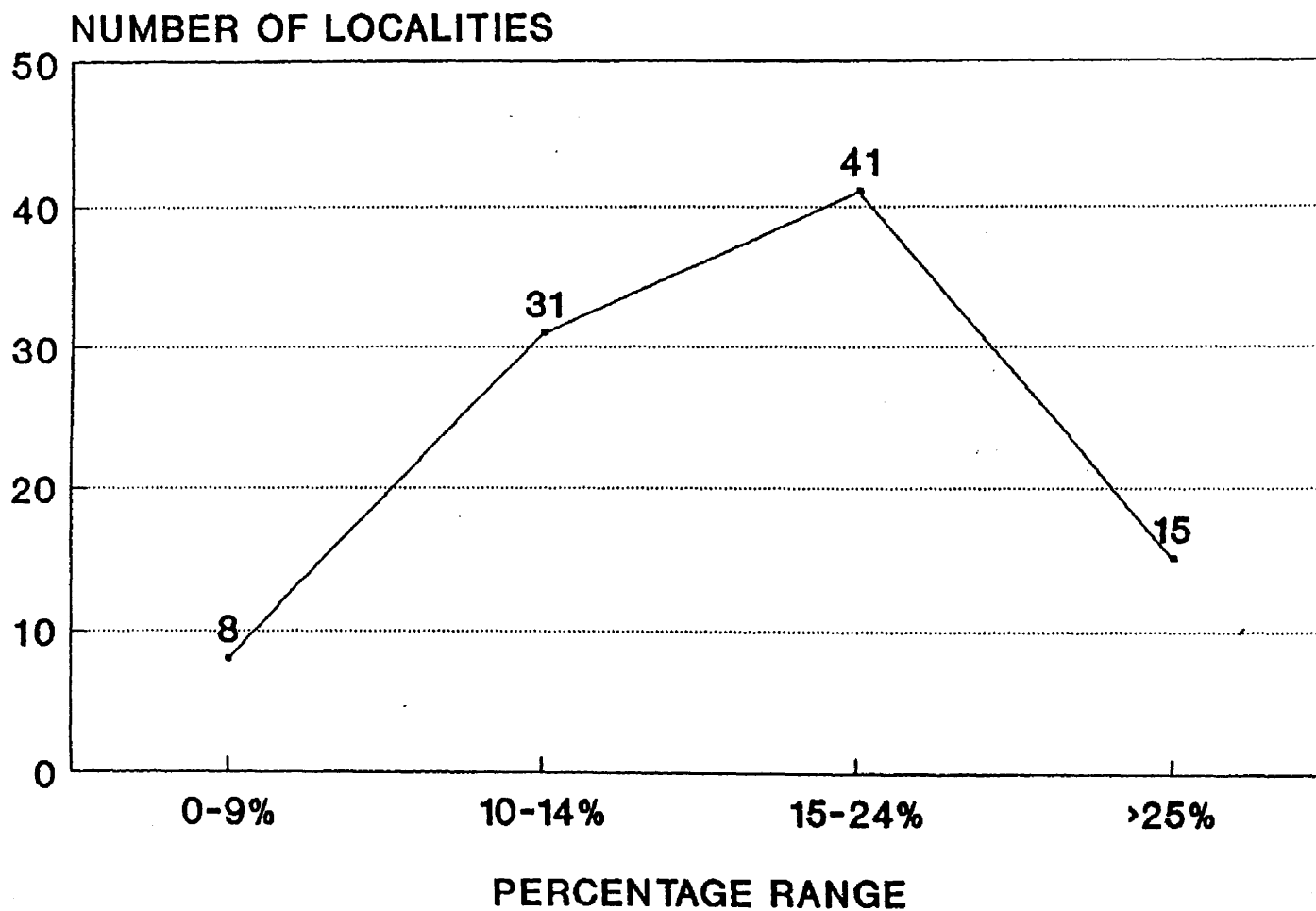
RESOLVED by the House of Delegates, the Senate concurring, That the Joint Subcommittee on Enhancing End-use Markets for Recycled Materials be continued. The Joint Subcommittee shall continue to examine ways to enhance recycling markets; review the progress made by Virginia localities and private industry in developing recyclable material collection, processing and marketing infrastructure in response to state legislative mandates; and evaluate the need for standards pertaining to environmental marketing claims. The Joint Subcommittee shall also monitor the activities of the Virginia Recycling Markets Development Council during the Council's initial year of operation. The current membership shall continue to serve.

The Joint Subcommittee shall complete its work in time to submit its findings and recommendations to the 1994 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 \$11,070; the direct costs of this study shall not exceed \$7,920.

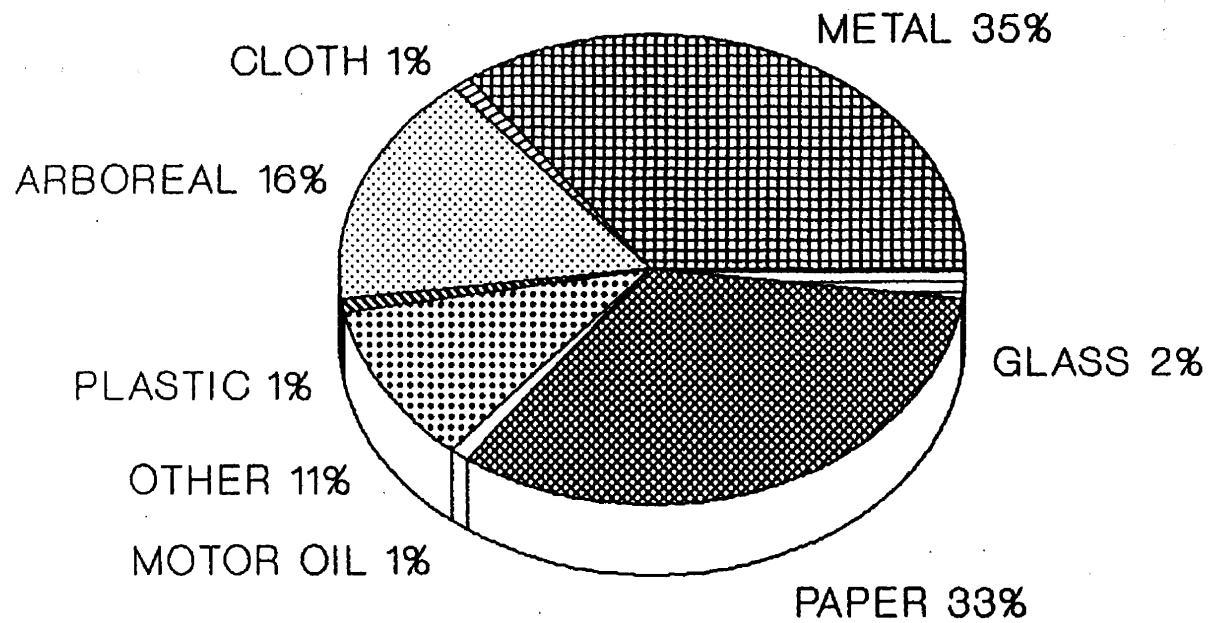
Implementation of this resolution is subject to the subsequent approval and certification by the Joint Rules Committee. The Committee may withhold expenditures or delay the period for the conduct of the study.

# 1991 LOCAL GOVERNMENT RECYCLING RATES



VADWM 3/30/93

# COMPOSITION OF MATERIALS RECYCLED



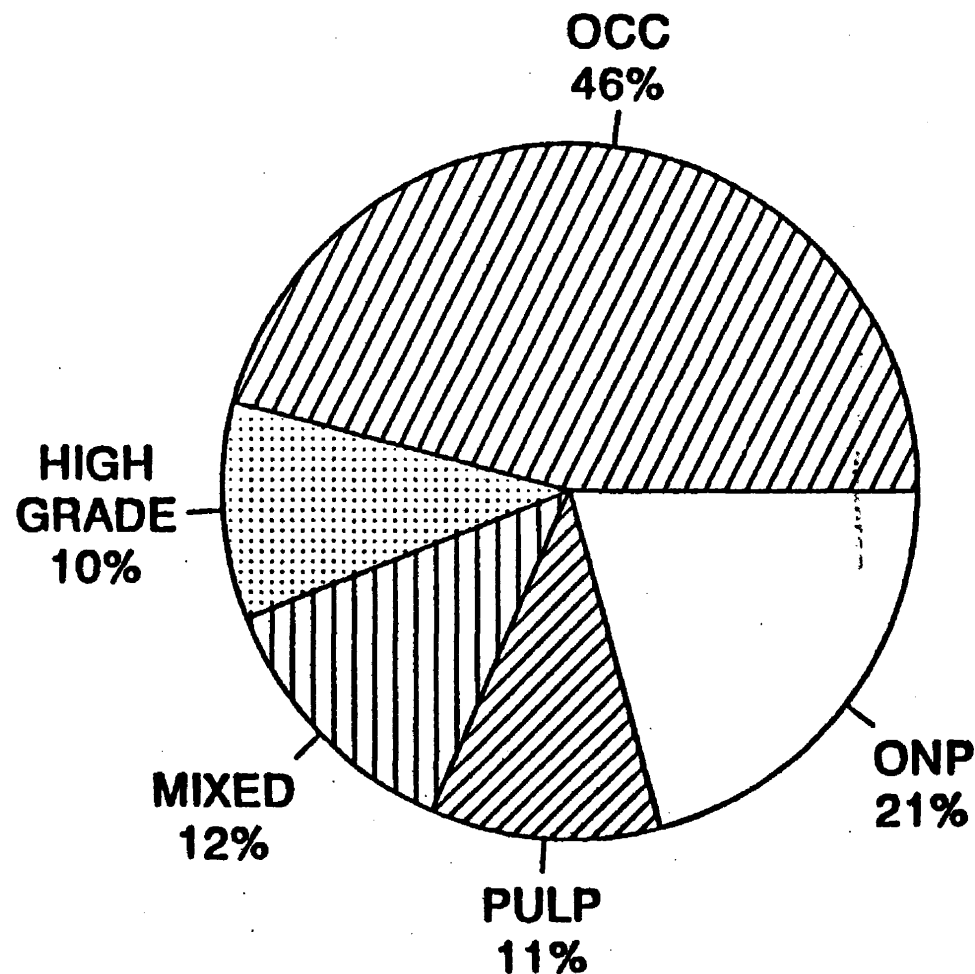
VADEQ 4/08/93

# ***SUMMARY OF LOCAL GOVERNMENT RECYCLING COLLECTION PROGRAMS***

	1990	1991	1992	YTD 1993
Active Programs counties & cities	81	109	109	109
Active Programs towns	17	31	31	31
Localities w/Multi-Material Curbside Collection	31	61	62	62
Homes w/Curbside	118,665	268,797	433,033	579,318
Collection Centers	247	483	549	560

# Grades of Recyclable Paper: Total All Uses (29,255,000 Tons - 1990)

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## APPENDIX E

### USED OIL COLLECTION ACT

**This legislative proposal would enable a state to establish and maintain public used oil facilities and programs. The state would promote the establishment of used oil collection programs; develop management standards for used oil collectors, transporters and recyclers; promote educational programs to make the public aware of the environmental problems created by improper disposal of used oil; and decrease the amount of improperly disposed used oil resulting from individuals changing their vehicles' oil.**

**The proposal would establish a used oil collection fund comprised of state general funds, grants or service fees to establish a toll-free telephone number for dissemination information about used oil collection centers; for grants and loans to local governments for the establishment of oil collection centers at public facilities; or for recycling programs as part of residential recycling services.**

**This item is based on the proposal drafted by the American Petroleum Institute (API), located in Washington, D.C. The API proposal is based on legislation enacted in South Carolina (ACT 63) and Texas (Chapter 303) in 1991. While the proposal does not prescribe a funding provision, API has suggested that such programs be funded with state general fund revenues, or in the event that is not possible, through the enactment of a fee on all oil sold or imported for use.**

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#### SUGGESTED LEGISLATION

(Enacting clause)

Section 1. [Short Title] This Act may be cited as the Used Oil Collection Act.

Section 2. [Legislative Findings, Purposes and Goals]

- (a) The legislature finds and declares that approximately (insert amount) million gallons of used oil are generated each year in the state and that this oil is a valuable resource which can be utilized as an environmentally acceptable source of energy or as clean re-refined products. Despite this potential value, a significant amount of used oil is improperly disposed of resulting in a significant environmental problem and a waste of a valuable energy resource.
- (b) The legislature finds that although there is an existing system for the collection and recycling of used oil generated by business and industry, private citizens have only limited access to that system and often dispose of their used automotive oil on land or in landfills, sewers, drainage systems, septic tanks, surface or ground waters and elsewhere.
- (c) It is the intent of the legislature to reduce the amount of improperly disposed used oil by

providing incentives to increase the number of certified collection facilities for used oil.

Therefore, a used oil collection fund is created for:

- (1) The establishment and maintenance of public used oil collection facilities and programs that support used oil collection and recycling;
  - (2) The development of management standards for used oil collectors, transporters and recyclers;
  - (3) The promotion of educational programs to encourage the public to dispose of used oil properly.
- (d) Used oil shall not be designated as a hazardous substance. If the federal government pre-empts the state's classification, the fund shall be used to properly manage used oil after the effective date of the federal law or regulation.

Section 3. [Definition] All used in this act, unless otherwise indicated:

- (1) "Automotive oil" includes any oil classified for use in an internal combustion engine, crankcase, transmission, gear box or differential for an automobile, bus or truck, lawn mower, or household power equipment.
- (2) "Department" means the (state department of health and environmental control).
- (3) "Do-It-Yourself(DIYer)" is an individual who removes used oil from the engine of a light duty motor vehicle, small utility engine owned or operated by such individual, non-commercial motor vehicle or farm equipment.
- (4) "Fund" means the used oil collection fund created by this act.
- (5) "Recycle" means to prepare used oil for reuse as a petroleum product by the reclaiming, reprocessing, energy recovery, re-refining or other means to utilize properly treated used oil as a substitute for petroleum products provided that the preparation and use is safe, legal, and environmentally sound.
- (6) "Retailer" means anyone who sells automotive oil to the consumer.
- (7) "Used oil" means any oil which has been refined from crude or synthetic oils and, as a result of use, becomes unsuitable for its original purpose due to loss of original properties, or presence of impurities, but which may be suitable for further use and may be economically recyclable. Used oil does not include oil filters that have been drained of free flowing used oil or oil contaminated materials.
- (8) "Used Oil Collection Center" means a facility, including fixed locations, tanks, trucks and containers, which accepts used oil from DIYers and which constitutes an approved centralized collection center for used oil.

Section 4. [Used Oil Collection Fund] There shall be established a state used oil collection fund. The used oil collection fund shall be restricted to the uses described in this act and shall be administered by the (department).

**COMMENTS:** This draft proposal suggests that the collection of used DIYer oil should be supported and funded by state general funds (with an amount appropriated annually by the state legislature), grants or service fees. It further provides that the administering department may apply for, request, solicit, contract for, receive and accept gifts, grants, donations, and other assistance from any source to carry out its powers and duties under the act.

However, it further acknowledges that because of different state needs and the variety of constitutional, statutory and administrative rules and procedures extant, necessary additional funding provisions must be drafted on a state-by-state basis. It further suggests that any fee on petroleum products to fund the used oil collection fund should apply only to sales of automotive oil, as defined in the act, in bulk and packaged form.

Section 5. [Administration of the Used Oil Program] The state used oil collection fund established by Section 4 of this act shall be used as follows:

- (1) A toll free telephone number shall be established by the (department) and maintained for the purpose of disseminating information concerning the locations and operating hours of DIYer used oil collection centers within the state as well as information concerning the availability, dates and requirements for curbside collection where available; in addition, information regarding alternate locations that accept commercial used oil should also be available.
- (2) The (department) may award grants, subsidies and/or loans to municipalities, counties and other government entities to establish DIYer used oil collection centers at publicly owned facilities such as fire stations, police barracks, highway department, county garages, public landfills, or other suitable public or private locations; and provide technical assistance to persons who organize such programs. In order to be eligible for reimbursement, such facilities shall be open at least (insert number) days per week with a regular schedule of not less than (insert number) hours per day and shall be attended.
- (3) The (department) may award grants and subsidies to any approved local government entities or private collectors which offer or include as part of residential garbage collection services curbside collection of used DIYer oil from households. The reasonable costs of household containers, truck retrofitting, tanks and similar costs associated with the curbside collection of used DIYer oil shall be eligible for reimbursement from the

fund.

- (4) All used oil collection centers must meet minimum standards as established by the (department).
- (5) In order to be eligible for reimbursement from the fund, collection facilities shall accept DIYer oil in quantities not to exceed (five) gallons per person, per day.
- (6) Used oil collection centers shall transfer used DIYer oil only to certified transporters and shall maintain records of all volumes of material collected, including the identity of the hauler and the name and location of the recycling facility.
- (7) The (insert state name) used oil collection fund shall indemnify and hold harmless any used oil collection center for all costs arising out of used DIYer oil collected from the public which is unsuitable for reuse or recycling, results from spills and/or contamination, or results from the additional liability associated with the operation of the used oil collection center.
- (8) Use of the fund for administrative expenses will be limited to those expenses directly incurred in the administration of the used oil collection program, and will not exceed (insert amount) of the fund. Since costs should decline after the program is fully implemented, and since the economic value of used oil will fluctuate, periodic sunset reviews are mandated every (insert number) years to determine whether continuation of the fee is necessary and if the fee rate is appropriate. In no circumstance shall the fund be used for purposes other than those set out in this act.

**Section 6. [Other Uses of the Fund]**

- (a) The principal purpose of the (insert state name) used oil collection fund shall be to reimburse local government entities for approved costs associated with curbside collection and public used oil collection centers as set forth in Section 5 of this act, including proper disposal of the used DIYer oil.
- (b) In addition, the (department) shall develop and allocate funds for:
  - (1) Public education programs concerning the proper handling and recycling of used DIYer oil; and
  - (2) Advertising, training and unique incentives that include direct payments to selected non-government, certified used oil collection centers, and other programs to promote the collection and recycling of used DIYer oil from the public.

**Section 7. [Limitation of Liability]**

- (a) A person or the state may not recover from the owner, operator, or lessor of a used oil collection center any costs of response actions resulting from a release of used oil collected at the center or in subsequent handling or disposition by others if:
- (1) The owner, operator, or lessor of the collection center does not mix the used oil collected with any hazardous substance;
  - (2) The owner, operator, or lessor of the collection center does not accept used DIYer oil that the owner, operator, or lessor knows contains hazardous substances; and
  - (3) The used oil collection center is in compliance with management standards issued by the (department) and the used oil is removed from the premises by a certified transporter.
- (b) For purposes of this section, the owner, operator, or lessor of a used oil collection center may presume that a quantity of less than (five) gallons of used oil accepted at any one time from any member of the public is not mixed with a hazardous substance, provided that the owner or operator acts in good faith.
- (c) This section applies only to activities directly related to the collection of used oil by a used oil collection center. This section does not apply to grossly negligent activities related to the operations of a used oil collection center.

Section 8. [Certification of Used Oil Collection Centers]

- (a) The (department) shall develop certification requirements for DIYer used oil collection centers shall require, at a minimum, that such centers:
- (1) Accept uncontaminated used DIYer oil from the general public in quantities up to (five) gallons, per person, per day;
  - (2) Participate in the state toll free telephone used oil information network system;
  - (3) Meet the minimum requirements for hours of operation as established by the (department); and
  - (4) Demonstrate that it complies with all state regulations concerning tank structure and integrity, maintenance, supervision, employee training and housekeeping.

Section 9. [Transporters]

- (a) The (department) shall develop certification procedures for transporters accepting used oil from public, private and commercial collection facilities. Such certification shall include:
- (1) A requirement that the transporter demonstrates familiarity with state regulations and

- proper used oil management rules;
- (2) A requirement that the equipment used in such transportation is in good mechanical condition and is suitable for the transportation of used oil;
  - (3) A requirement of proof of liability insurance or other means of financial responsibility as established by the (department);
  - (4) A showing that all record keeping and reporting practices are in compliance with all applicable regulations; and
  - (5) Documentation that all used oil is delivered to qualified customers or certified recyclers.
- (b) Where used oil is sold directly by the transporter to an end-user, documentation must include test results showing that said used oil meets all applicable regulatory standards.
- (c) The (department) shall require that transporters file an annual report which specifies the type and quantity of used oil transported, collected and recycled during the preceding year.
- (d) Any person who annually transports over public highways, more than (500) gallons of used oil must be a certified transporter.
- (e) The (department) shall promulgate regulations establishing procedures for the certification of transporters.

Section 10. [Recyclers]

- (a) The (department) shall develop management standards for used oil recycling.
- (b) The recycler must be in compliance with all federal, state and local regulations and have all necessary permits.
- (c) The (department) shall require an annual report which specifies the quantity and source of used oil recycled during the preceding year.
- (d) Each recycler shall report on an annual basis the total products produced, sold, used in the business, or disposed of during the preceding year.

Section 11. [Prohibited Acts]

- (a) Other than provided for in a state or federal discharge permit, no person shall intentionally:
- (1) Discharge used oil into sewers, drainage systems, septic tanks, surface waters, ground waters, water courses or marine waters;
  - (2) Collect, store, recycle, use or dispose of used oil in any manner which endangers the public health or welfare;
  - (3) Dispose of used oil in any landfill; or
  - (4) Mix or commingle used oil with hazardous substances that make it unsuitable for recycling or beneficial use.
- (b) Used oil may not be used for road oiling, dust control, weed abatement or similar uses which have the potential to cause harm to the environment.
- (c) Any person who violates this section shall be guilty of a (gross misdemeanor) and shall be liable for fines not to exceed (insert amount) dollars per violation per day. This provision may be enforced by a state, county or municipal law enforcement official.

Section 12. [Retail Sales of Automotive Oil] Any retailer of automotive oil that is not a collection center shall post and maintain at or near the point of automotive oil display or sale, a durable and legible sign (minimum size of eight and one-half by eleven inches) informing the public of the importance of proper collection and disposal of used DIYer oil and the toll free number for used oil information.

Section 13. [Effective Date][Insert effective date]

# APPENDIX F

## REDUCTION OF TOXICS IN PACKAGING

Model legislation developed in the northeast states (CONEG) has been adopted in Florida, Georgia and other states. It serves to reduce the toxicity of packaging without impeding or discouraging the expanded use of recycled materials in the production of packaging and its components.

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### SUGGESTED LEGISLATION

(Enacting clause)

Section 1. [Short Title] This Act may be cited as the Reduction of Toxics in Packaging Act.

Section 2 [Legislative Findings, Purposes and Goals]

(a) The legislature finds that:

- (1) The management of solid waste can pose a wide range of hazards to public health and safety and to the environment;
- (2) Packaging comprises a significant percentage of the overall solid waste stream;
- (3) The presence of heavy metals in packaging is a concern due to the potential presence of heavy metals in residue from manufacturer's recycling processes, emissions or ash when packaging is incinerated or in leachate when packaging is landfilled;
- (4) Lead, mercury, cadmium and hexavalent chromium, on the basis of scientific and medical evidence, are of particular concern;

(b) It is the intent of the legislature to:

- (1) Reduce the toxicity of packaging;
- (2) Eliminate the addition of heavy metals to packaging; and,
- (3) Achieve reduction in toxicity without impeding or discouraging the expanded use of recovered material in the production of products, packaging and its components.

Section 2. [Definitions] As used in this Act unless otherwise indicated:

- (1) 'Distributor' means any person who takes title to products or packaging purchased for resale.
- (2) 'Manufacturer' means any person, firm or corporation that produces products, packages,



packaging, or components of products or packaging.

- (3) 'Package' means any container which provides a means of marketing, protecting, or handling a product, including a unit package, intermediate package, or a shipping container. The term includes, but is not limited to, unsealed receptacles such as carrying cases, crates, cups, pails, rigid foil and other trays, wrappers and wrapping films, bags, and tubs.
- (4) 'Packaging Component' means any individual assembled part of a package, including but not limited to interior and exterior blocking, bracing, cushioning, weatherproofing, exterior strapping, coatings, closures, inks, labels, and tinned steel that meets the American Society for Testing and Materials (ASTM) Specification A-623. The term does not include an industrial packaging component intended to protect, secure, close, utilize, and provide pilferage protection for any product destined for commercial use.

Section 3. [Schedule for Removal of Incidental Amounts of Heavy Metals]

- (a) On and after July 1, 1995, no manufacturer or distributor shall offer for sale, sell, or offer for promotional purposes in this state a package or packaging component which includes, in the package itself or in any packaging component, inks, dyes, pigments, adhesives, stabilizers, or any other additives containing lead, cadmium, mercury, or hexavalent chromium which has been intentionally introduced as an element during manufacturing or distribution as opposed to the incidental presence of any of these elements and which exceeds the concentration level established by this Act.
- (b) On and after July 1, 1995, no manufacturer or distributor shall offer for sale, sell, or offer for promotional purposes in the state a product in a package which includes, in the package itself or in any of the packaging components, inks, dyes, pigments, adhesives, stabilizers, or any other additives containing lead, cadmium, mercury, or hexavalent chromium which has been intentionally introduced as an element during manufacturing or distribution as opposed to the incidental presence of any of these elements and which exceeds the concentration level established by this act.
- (c) The sum of the concentration levels of lead, cadmium, mercury, and hexavalent chromium present in a package or packaging component shall not exceed the following:
  - (1) Six hundred (600) parts per million by weight on and after July 1, 1995;
  - (2) Two hundred fifty (250) parts per million by weight on and after July 1, 1996;and

- (3) One hundred (100) parts per million by weight on and after July 1, 1997.

Concentration levels of lead, cadmium, mercury, and hexavalent chromium shall be determined using ASTM test methods, as revised, or United States Environmental Protection Agency Test Methods for evaluating Solid Waste, S-W 846, as revised.

Section 4. [Exemptions] The following packaging and packaging components are exempt from the requirements of this Act.

- (1) Packaging or packaging components with a code indicating a date of manufacture prior to July 1, 1995;
- (2) Packages or packaging components to which lead, cadmium, mercury, or hexavalent chromium have been added in the manufacturing, forming, printing, or distribution process in order to comply with health or safety requirements of federal law or for which there is no feasible alternative and where the manufacturer of a package or packaging component petitions the department for an exemption from the provisions of this act for a particular package or packaging component. The department may grant a two-year exemption, if warranted by the circumstances, and an exemption may, upon meeting either criterion of this paragraph, renewed for two years. For purposes of this paragraph, a use for which there is no feasible alternative is one in which the regulated substance is essential to the protection, safe handling, or function of the package's contents; or
- (3) Packages and packaging components that would not exceed the maximum contaminant levels established but for the addition of recovered materials.

Section 5. [Certificate of Compliance]

- (a) On and after July 1, 1995, each manufacturer or distributor of packaging or packaging components shall make available to purchasers, the department, and the general public, upon request, certificates of compliance which state that the manufacturer's or distributor's packaging or packaging components comply with, or are exempt from, the requirements of this act.
- (b) If the manufacturer or distributor of the package or packaging component reformulates or creates a new package or packaging component, the manufacturer or distributor shall provide an amended or new certificate of compliance for the reformulated or new package or packaging component.

Section 6. [Rules Authorized] The environmental regulatory department is authorized to adopt rules to implement and manage the provisions of this act. The department shall convene an advisory committee of affected parties and the general public to assist in the development of such rules.

Section 7. [Repealer]

Section 8. [Effective Date]

## APPENDIX G

### CREATION OF A STATE RECYCLING MARKET ADVISORY COUNCIL

**This Act establishes a Recycling Market Advisory Council to assist in the development of markets for recovered materials and products with recycled content in this state. It provides for the function, duties, and membership of the Council.**

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#### SUGGESTED LEGISLATION

(Enacting clause)

Section 1. [Short Title] This Act maybe cited as the Recycling Market Advisory Council Act.

Section 2. [Legislative Findings, Purposes and Goals]

(a) The Legislature finds that:

- (1) It is necessary and appropriate for the state to promote markets for recycled or other recovered materials.
- (2) The state should promote the purchase of products made from recycled and other recovered material;
- (3) Financial and other incentives need to be evaluated which will sustain existing recycling businesses and attract new businesses that can use recycled or recovered materials generated within the state;
- (4) Barriers to the development of markets for recycled materials, including existing state policies regulations and procedures, should be identified and alternatives recommended to overcome such barriers:

(b) The legislative proposes of this Act provides for the formation of a council of experts in the field of recycling which shall be called upon to develop and recommend to the legislature a plan to strengthen the state's recycling infrastructure and markets which will:

- (1) Improve the supply and quality of recovered material available,
- (2) Expand the capacity of collectors, processors and manufacturers to handle and use recovered materials,
- (3) Incorporate strategies to increase the use of specific materials, and,
- (4) Enhance the viability of existing recycling infrastructure and manufacturers which utilize recovered material.

(c) The legislative goal of this Act is to increase markets for recovered materials.

Section 3. [Definitions]

(None included herein)

Section 4. [Suggested Membership; Membership Meetings; Term; and Staffing]

(a) The Council shall be composed of seventeen members, including fifteen members appointed by the Governor, and one each by the Senate President and Speaker of the House as follows:

- (1) One member representing the paper recycling industry;
- (2) One member representing the oil recycling industry;
- (3) One member representing the metals recycling industry;
- (4) One member representing the independent scrap recycling industry;
- (5) One member representing the aluminum recycling industry;
- (6) One member representing the glass recycling industry;
- (7) One member representing the plastics recycling industry;
- (8) One member representing the tire recycling industry;
- (9) One member representing the textile recycling industry;
- (10) One member representing the municipal association;
- (11) One member representing the county association;
- (12) One member representing the general public;
- (13) One member representing an environmental organization;
- (14) One member representing the solid waste collection and disposal industry;
- (15) One member representing the chemical industry;
- (16) One member appointed by The Senate President, and
- (17) One member appointed by The Speaker of The House.

(b) Members of the Senate, House, Governor's office, or executive branch agencies shall serve without voting rights as ex-officio members of the Council.

(c) Each member of the Council shall serve a two-year term beginning on the date of appointment or until a successor is qualified and appointed. Members shall be appointed within 60 days after this Act takes effect.

(d) The Council shall select a chair and vice/chair. The Council shall adopt operating procedures and meet on the call of the chair or a majority of the members. A majority of the members constitutes

a quorum to do business.

- (e) The Council may not apply for or receive grants, contributions, or donations from any source, including the state and federal government. The supporting executive branch agency may hire staff, contract with other state agencies for staff support and, receive grants or donations to fund council activities and contracts for support, planning, evaluation and promotion services.
- (f) All state agencies shall cooperate with the Council and upon request, assist the Council in performance of its duties. The Governor shall provide administrative support to the Council through the department of natural resources, environmental protection, commerce, or industrial development agency. A lead agency shall be designated by the Governor.

Section 5. [Members to Serve Without Compensation] Members of the Council shall serve without compensation but are entitled to reimbursement for travel and per diem expenses as provided by state policy governing such reimbursement.

Section 6. [Goals and Reports]

- (a) Within 90 days of being appointed, the Council shall convene and develop a plan to set goals which will guide the operation and function of the Council.
- (b) The plan shall contain a concise mission statement which will include advising the Governor and Legislature through provision of direction for developing new markets, while expanding and enhancing existing markets. Fair and equal treatment of existing recycling programs and businesses shall be incorporated in the mission statement and plan.
- (c) The Council shall report annually, beginning November 1, of this year, findings and recommendations to the Governor, President of the Senate and Speaker of the House. The report shall contain accomplishments of the Council, impediments to market development, state agency activities in support of the Council's mission and include any recommendations for legislative matters that should be addressed.

Section 7. [Repealer]

Section 8. [Effective Date]

## APPENDIX H

### REGULATION OF RECOVERED MATERIAL

**Policies regarding state and local regulation of solid waste and interstate transport of solid waste should be structured to assure that recovered (source separated or diverted recyclable) material, which is nonhazardous in nature, is not adversely affected. Several states, including Florida, Georgia and North Carolina have passed legislation which supports recycling market development through protection of recovered material from non health, safety and welfare regulations which may be placed upon solid waste. The Act provides a mechanism for local government implement residential curbside collection programs. Flow control over solid waste is not considered in this suggested legislation.**

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### SUGGESTED LEGISLATION

[Enacting Clause]

Section 1. [Short title] This Act may be cited as the Recovered Material Regulation Act.

Section 2. [Legislative Findings, Purposes, and Goals]

(a) The legislature finds that:

- (1) Recycling market development requires the free movement of recyclable materials across city, county and state lines.
- (2) Recycling is a commodity business based upon open and competitive purchase, sale, shipment, receipt and consumption of recovered material.
- (3) Recovered materials are distinguishable from solid waste.
- (4) Regulations over recovered materials should be developed which distinguish their management from management of solid waste.

(b) The legislature declares that it is the purpose of this Act to:

- (1) Protect recovered material from unnecessary and burdensome regulation by eliminating state legislative and regulatory policies which subjects the collection, processing, purchase, sale or use of recovered materials to burdensome and unnecessary solid waste regulation.
- (2) Require that state agencies and local governments regulate recovered materials and its handling as a business rather than as solid waste.
- (3) Establish an affirmative public policy that recovered materials are not solid waste.
- (4) Provide for a clear transfer of title for recovered materials placed at the curb or at drop-off.

locations, to enhance local governments' ability to implement curbside collection programs for recovered materials.

Section 3. [Definitions] As used in this Act, unless otherwise indicated:

- (1) "Commercial Establishment" means any nonresidential building or establishment, for profit or nonprofit, including, but not limited to, those used for retail, wholesale, dining, offices, professional services, housing structures consisting of three or more dwelling units, automobile service, hotels and motels, restaurants, or shipping and receiving areas.
- (2) "Department" means the Department of [environmental regulatory agency]
- (3) "Discard" means the transfer of solid waste to a person by the generator of such waste after determination that the material has become useless or superfluous, and includes items and materials which may be destined for ultimate disposal as solid waste [at a landfill or waste-to-energy facility] whether or not containing material which may be removed from such waste for purposes of recovery or recycling.
- (4) "Material Recycling Facility or [MRF]" means a facility engaged solely in the storage, processing, and resale or reuse of recovered materials. Such term shall not include a solid waste recovery or handling facility; provided, however, any solid waste generated by such facility shall be subject to all applicable laws and regulations relating to such solid waste.
- (5) "Recovered Materials" means metal, paper, glass, plastic, textile, yard trimmings, or rubber materials that have known recycling potential, can be feasibly recycled, and have been diverted and source separated or have been removed from the solid waste stream for sale, use, or reuse as raw materials, whether or not the materials require subsequent processing or separation from each other, but does not include materials destined for any use that constitutes disposal. Recovered materials as described above are not solid waste.
- (6) "Recyclables" means those materials which are capable of being recycled, whether or not the materials have been diverted or removed from or contained within the solid waste stream.
- (7) "Residential Establishment" means any housing structure consisting of one or two dwelling units including, but not limited to, single-family homes.
- (8) "Solid Waste" means any garbage or refuse; sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility; and other discarded material including solid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and community activities, but does not include recovered materials; solid or



dissolved materials in domestic sewage; solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permit under 33 U.S.C. Section 1342; or source, special nuclear, or by-product material as defined by the federal Atomic Energy Act of 1954, as amended (68 Stat. 923).

- (9) "Solid Waste Materials Recovery Facility" means a solid waste handling facility that provides for the extraction from solid waste of recoverable materials, materials suitable for use as a fuel or soil amendment, or any combination of such materials.
- (10) "Source Separated" means the recovered materials are separated from solid waste where the recovered materials and solid waste are generated. The term does not require that various types of recovered materials be separated from each other and recognizes de minimis solid waste, in accordance with industry standards and practices, may be included in the recovered materials.

Section 4. [Recovered Materials Ownership]

- (a) A generator of recovered materials retains ownership of those materials until he or she donates or sells those materials to another person. A local government shall not require such a generator to convey, donate, or sell recovered materials to that local government or to a designated facility, nor restrict such a generator's right to donate or sell recovered materials to any properly licensed recycling facility. A local government shall not enact any ordinance which prevents a licensed recycling company or nonprofit entity from receiving, purchasing, accepting, and transporting recovered materials from a generator, a buy-back center, or a drop-box, or placing drop-boxes on private property for the collection of recovered materials; provided, however, that such activities are subject to applicable state and local public health and safety laws and zoning laws.
- (b) Ownership of recovered materials is transferred to the operator of a curbside or containerized recovered materials collection program at the time when such recovered materials are placed into the container provided by the operator of the program and are placed at the curb or designated location for collection. Ownership of recovered materials is transferred to the operator of a recovered materials drop-off program at the time when such recovered materials are placed into the drop-off container provided by the operator of the program. If the operator of a recovered materials collection or drop-off program is operating under contract with and on behalf of a local government, the local government may, by contract, assume ownership of the recovered materials contributed to such program.

- (c) Local governments are authorized to direct to designated facilities those recovered materials which are owned by the local government or by a person operating under contract with and on behalf of the local government.
- (d) A county or municipality shall not adopt by ordinance any definition that is inconsistent with the definitions in Section 3 of this Act.
- (e) Materials Recycling Facilities, and facilities engaged solely in the handling and processing of recovered materials, are not solid waste management facilities, provided that:
  - (1) A majority of the recovered materials at the facility are demonstrated to be sold, used, or reused within one year;
  - (2) The recovered materials handled by the facility are not discharged, deposited, injected, dumped, spilled, leaked, or placed into or upon any land or water by the owner or operator of such facility so that such recovered materials or any constituent thereof may enter other lands or be emitted into the air or discharged into any waters, including groundwater, or otherwise enter the environment such that a threat of contamination in excess of applicable department standards and criteria is caused;
  - (3) The recovered materials handled by the facility are not hazardous wastes as defined by applicable statutes and rules promulgated pursuant thereto; and
  - (4) The facility participates in the reporting system developed pursuant to Section 5 of this Act.
- (f) Nothing in this section shall be construed to limit the authority of the state or any local government to regulate the handling of recovered materials or solid waste in order to protect the public health and safety or the environment.

Section 5. [Reporting Requirements]

- (a) Six months after the effective date of this Act, any person who handles, purchases, receives, recovers, sells, or is an end-user of recovered materials, shall be subject to the reporting requirements of this Section. The department may, by rule, exempt from this requirement, generators of recovered materials, persons who handle or sell recovered materials as an activity which is incidental to the normal primary business activities of that person, or persons who handle, purchase, receive, recover, sell, or are end-users of recovered materials in small quantities as defined by the department.

(b) The department shall adopt rules for the reporting by such persons. Prior to the adoption of such rules, the department shall appoint a technical advisory committee of no more than nine persons, including at a minimum, a representative of the scrap processing and recycling industry, the solid waste management industry, the municipal association, and the county association, to aid in the development of such rules. Such rules shall be designed to elicit the following information:

- (1) The amount and general types of recovered materials handled by such persons; and
- (2) The amount and disposal site, or name of person with whom such disposal was arranged, of any solid waste generated, collected, or removed from recovered materials, by such facility.

Information reported pursuant to such rule which reveals the volume and type of materials handled, and any related proprietary information, the disclosure of which is a trade secret or would injure the reporting person in the marketplace, is confidential and exempt from the provisions of [STATE OPEN RECORDS LAW - CITE]

Section 6. [Repealer]

Section 7. [Effective Date]

## APPENDIX I

### MARKET DEVELOPMENT THROUGH STATE AGENCY PROCUREMENT OF RECOVERED MATERIALS

Most states in the Southern Legislative Conference have passed legislation to institute and maintain a comprehensive program for state agency procurement of products that contain recovered materials. This suggested legislation Act addresses certain policies in support of that legislation. It addresses an aggregate goal for paper purchases, use of 2 sided copying machines, retread tires, recovered materials in highway construction and redefined oil.

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#### SUGGESTED LEGISLATION

(Enacting clause)

Section 1. [Short title] This Act may be cited as the Recovered Material Procurement Act.

Section 2. [Legislative Findings, Purposes and Goals]

(a) The legislature finds that:

- (1) Markets for recovered materials are essential to increase the diversion of materials from the waste stream and is, therefore, a necessary focus of the state's effort to help solve the solid waste disposal crisis, as well as improve the economic and environmental health of the state.
- (2) Collection, processing and recycling of recoverable material is a wise use of natural resources and creates productive employment.
- (3) It is in the public interest to create purchasing incentives that increase the demand for products manufactured from recovered materials.

(b) In furtherance of the state recycling that policies, it is declared be the policy of the state to institute and maintain as a comprehensive program for the purchase of products that contain recovered materials.

(c) It shall be the goal of this Act to require that all state agencies pursue all options to increase use of recovered material in conduct of the state's business.

Section 3. [Definitions] As used in the Act unless otherwise indicated;

- (1) "Recovered materials" means, oil, metal, paper, glass, plastic, textile, yard trimmings or rubber materials that have a known recycling potential; can be feasibly recycled, and have been diverted and source separated or have been removed from the solid waste stream for sale, use or reuse as a raw material whether or not the material require subsequent processing or separation from each other, but does not include any material destined for disposal. Recovered materials as described are not solid waste.
- (2) "Composting" means the operation whereby the solid organic constituents of solid waste or recovered material are broken down through microbic action to a stable, humus-like material presenting no hazard or nuisance factors to public health or well-being.
- (3) "Product" means a marketable product or component thereof which has an economic value to the wholesale or retail consumer and is ready to be used without further alteration of its form, or a product or material which is marketed as a prepared material, or, is a component in the manufacturing and assembly of other finished products.

Section 4. [Elimination of Barriers]

- (a) The state purchasing agency, environmental regulatory agency and department of transportation shall jointly review and revise existing procurement procedures and specifications for the purchase of products and materials to eliminate any procedures and specifications that explicitly discriminate against products and materials with recovered material content except where such procedures and specifications are necessary to protect the public health, safety, and welfare.
- (b) Each state agency shall review and revise its procurement procedures and specification for the purchase of products and materials to eliminate any procedures and specification that explicitly discriminate against products and materials with recovered content, except if such procedures and specifications are necessary to protect the public health, safety, and welfare.

Section 5. [Price Preference] All state agencies, departments, and authorities, are authorized to allow up to a 10% purchase price preference for products or materials produced with recovered materials. Such preference shall be authorized at a rate of 1% increase in purchase price for each 10% increase in recycled content.

Section 6. [Aggregate Goal] State agency recovered material content goals shall be based on aggregate annual content. Such goals shall not include the virgin content of internally generated scrap that is commonly used in an original manufacturing process.

- Section 7. [Life-cycle Costing] Each state agency shall consider life-cycle costing when evaluating a bid on a product that contains recovered materials. The purchasing agency shall adopt rules that specify the criteria to be used for considering life-cycle costing in evaluating bids. The rules shall take into consideration the specified warranty periods for products and the comparative expected service life relative to the cost of the products.
- Section 8. [Product or Materials List] The purchasing agency shall develop and publish, not later than 180 days after enactment of this Act, a list of products and materials containing recovered materials to assist agencies, departments, and authorities in maximizing both purchasing power and the purchase of recovered materials in the most cost-efficient manner.
- Section 9. [Reduction and Reuse] In addition to recycling, each state agency, department, and authority shall set goals and take action to implement policies which require recycling, reduction and reuse of materials generated by state agencies. Agencies shall report annually to the Governor and to the legislature on progress made towards achieving agency goals and on barriers to increased reduction and reuse. These policies shall include, but not be limited to, double-sided printing, copying, refilling and reusing laser printer cartridges, the use of retreaded tires, redefined oil and the purchase of source reduced products. Where feasible, agencies shall discontinue the use of 8 1/2" x 14" paper. Replacement copier machines shall include double-sided copying capability and shall be compatible with the use of paper containing recycled content.
- Section 10. [Use of Recovered Material in Highway Construction and Maintenance] The transportation department, in consultation with the agriculture department, shall undertake studies, demonstration projects and research in order to stimulate the use of recovered materials, including compost and mulch in construction and maintenance of the state highway system.
- Section 11. [Repealer]
- Section 12. [Effective Date]

## APPENDIX J

### RECYCLING MARKET DEVELOPMENT INCENTIVES ACT

**This Act, patterned after 1991 Oklahoma legislation and recent Arkansas legislation establishes a program to provide financial incentives through tax credits to manufacturers which currently produce, or will expand capacity to produce, products or materials containing recycled materials. The purpose is to encourage manufacturers to maintain or increase recycling capacity which will benefit local government efforts to reduce solid waste volume and solid waste handling costs which are a burden on local taxpayers. The Act establishes a level playing field between new and existing capacity by providing optional credits against income tax for expansion of recycling capacity or solid waste diversion tax credit against sales and use tax for ongoing recycling facilities. It enables local property tax exemptions for recycling facilities.**

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#### SUGGESTED LEGISLATION

(Enacting clause)

Section 1. [Short Title] This Act may be cited as the Recycling Market Development Incentives Act

Section 2 [Legislative Findings, Purposes and Goals]

(a) The legislature finds that:

- (1) Manufacturers which have previously invested in recycling capacity provide a valuable and essential service to the citizens of the state and its citizens;
- (2) Manufacturers that maintain their current level of recycling or increase capacity to divert raw materials from the solid waste stream through recycling provide a valuable service to the state and its citizens;
- (3) Removal or diversion of material from the solid waste stream contributes to a more healthy environment;
- (4) Local government and the taxpayers benefit from private industry recycling through financial savings that result from reduction of solid waste management costs;
- (5) Recycling increases the life and reduces the size of solid waste disposal facilities by removing and diverting material which can be manufactured into new materials and products;
- (6) Providing financial incentives to manufacturers which recycle materials will increase recycling capacity and provide a direct savings to local governments in the form of reduced solid waste disposal costs;

(b) The legislature declares that it is the purpose of this Act to:

- (1) Establish a program to provide financial incentives to manufacturers which produce products and materials containing recycled material;
  - (2) Establish a policy which encourages manufacturers to increase recycling capacity;
- (c) The legislature declares that, in order to promote and protect the health, safety and welfare of the citizens of the state, it is in the best interests of the state to achieve the following goals:
- (1) Establish an affirmative public policy that directly supports recycling market development;
  - (2) Creates investment tax credits for certain investments in real and personal property used to increase the capacity of a manufacturer's recycling facility;
  - (3) Provides for financial incentives through tax credits, to encourage certain existing manufacturer's recycling facilities to continue removal or diversion of recyclable material from the solid waste stream through maintenance of current recycling capacity;
  - (4) Provides definitions applicable to such tax credits;
  - (5) Establishes certain qualifications and restrictions in connection with such tax credits.

**Section 3** [Definitions] As used in this act, unless otherwise indicated:

- (1) "Diversion through recycling" means manufacturers' consumption, through recycling, of recovered materials, excluding virgin content of mill broke or home scrap, which would otherwise be disposed as solid waste;
- (2) "Manufacturer's recycling facility" means a qualified investment property which includes all real and personal property including land, land improvements, building, machinery and equipment located in the state and used by a taxpayer for the construction, operation, or expansion of a manufacturing facility at which diversion through recycling is conducted; provided that such facility contains office space related to the recycling facility not exceeding ten percent (10%) of the total building square footage.
- (3) "Product" means a marketable product or component thereof which has an economic value to the wholesale or retail consumer and is ready to be used without further alteration of its form, or a product or material which is marketed as a prepared material, or, is a component in the manufacturing and assembly of other finished products;
- (4) "Recovered material" means oil, metal, paper, glass, plastic, textile, yard trimmings or rubber materials that have a known recycling potential; can be feasibly recycled and have been diverted and source separated or have been removed from the solid waste stream for sale, use or reuse as a raw material, whether or not the materials require subsequent processing or separation from each other, but does not include any material destined for disposal. Recovered materials as described above are not solid waste.



- (5) "Recycling" means any process by which materials are collected, separated, or processed and reused or returned to use as raw material for the manufacture of a new consumer product, package or component, or package of a consumer product.
- (6) "Recycling machinery and equipment" means all tangible personal property used directly in collecting, separating, processing, modifying, converting, or manufacturing through recycling of products which are composed of recovered materials, such term includes, but is not limited to, pollution control, process power and steam generation machinery and equipment.
- (7) "Recycling supplies" means all operating supplies, excluding office supplies, but including electricity, fuels and lubricants, wrapping, containers, pollution control, process power and steam generation used directly for recycling at a manufacturer's recycling facility.

Section 4. [Tax Credits for Expanding Manufacturing Recycling Capacity]

- (a) In the case of a manufacturer, including a corporation or partnership which establishes a new or expands an existing recycling facility in this state, there shall be allowed a credit against corporate state income taxes in an amount capped at \_\_\_\_ of the cost of all manufacturer's recycling facility which is purchased, acquired or placed in service by the taxpayer in such year, subject to the qualifications and restrictions set forth in this Code section.
- (b) The tax credit granted under subsection (a) of this code section shall be subject to the following qualifications and restrictions:
  - (1) In order to qualify as a basis for the credit, the recycling facility must begin start up operation of the manufacturer's recycling facility no sooner than the effective date of this Act;
  - (2) The credit may be taken beginning with the tax year in which the manufacturer's recycling facility is purchased, acquired, placed in service or started up operations by the taxpayer. For every year in which a taxpayer claims the credit, the taxpayer shall attach a schedule to the taxpayer's state income tax return which shall contain such information as the state tax agency sets forth by rule;
  - (3) Any credit claimed under this code section, but not used in any taxable year, may be carried forward for fifteen (15) years from the close of the taxable year in which the qualified recycling facility was purchased, acquired or placed in operation;
  - (4) The credit established by this Code section taken in any one taxable year shall be limited to an amount capped at \_\_\_\_\_ of the taxpayer's state income tax liability which is attributable to income derived from operations in this state for that taxable year;

- (5) In order to qualify for credits, the taxpayer shall provide information in the initial year filing which demonstrates the following new or expanded manufacturer's recycling facility capacity:
  - (i) the facility will divert at a minimum 6,000 tons per year of additional recovered material from the solid waste stream, or
  - (ii) the facility will increase recycling capacity by a minimum of five (5) percent on an annual basis;
- (6) Any lease for a period of five (5) years or longer of any real or personal property used in new or expanded manufacturing recycling facility which would otherwise constitute qualified investment property shall be treated as acquisition of a qualified recycling facility by the leasee. The taxpayer may treat the full value of the leased property as qualified investment property in the taxable year in which the lease becomes binding on the leaser and the taxpayer if all other conditions of this section have been met;
- (7) The utilization of the credit granted in subsection (a) of this section shall have no effect on the taxpayer's ability to claim depreciation for tax purposes on the assets acquired by the manufacturer nor shall the credit have any effect on the taxpayer's basis in such assets for the purpose of depreciation;
- (8) The taxpayer may elect to take the income tax credit for expanded manufacturer's recycling facility capacity as provided in this code section or may elect to take the credit in the form of solid waste diversion tax credits as described below. [Section 5] A taxpayer electing to take the credit against income tax for expanded manufacturer's recycling facility capacity shall not be allowed to take the credit for solid waste diversion through recycling.

Section 5. [Solid Waste Diversion Through Recycling Credit] Manufacturers that divert recyclable material from the solid waste stream shall be eligible for a credit against sales and use tax as follows:

- (a) Manufacturer's recycling facilities which exclusively divert recyclable material from the solid waste stream shall be eligible for credit against sales and use taxes for all purchases directly related to operation of the manufacturer's recycling facility. Any person, making a sale of machinery, equipment or supplies for the purposes specified in this code section shall collect the sales and use tax imposed on sale of such machinery, equipment or supplies unless the purchaser furnishes the person making the sale with a certificate issued by the state certifying that the purchaser is entitled to purchase the recycling machinery equipment and supplies without paying the tax.

- (b) Manufacturer's recycling facilities which operate in conjunction with, or, are a part of a virgin material manufacturing facility shall be eligible to claim a credit against sales and use taxes for machinery, equipment and supplies that is directly attributable to diversion of recyclable material from the solid waste stream;
- (c) Any manufacturer claiming the diversion sales and use tax credit where such recycling manufacturer's facility is used in combination with a virgin manufacturing facility shall file annually with the state a request for a refund of sales and use tax paid on machinery, equipment and supplies directly attributable to solid waste diversion through recycling.
- (d) For manufacturer's recycling facilities exclusively using recyclable material or using recyclable material in combination with virgin materials to claim the benefits of this section a taxpayer must obtain a certification from the state tax agency certifying that:
  - (i) the taxpayer is engaged in the business of diverting recyclable material from the solid waste stream for purposes of recycling;
  - (ii) the machinery, equipment and supplies purchased are directly attributable to recycling;
  - (iii) the machinery, equipment and supplies are to be used in the collection, separation, processing, modification, conversion or manufacturing of products or materials which are exclusively recycled from recovered material; such product or material to be recycled may contain de minimis amounts of filler, packing or miscellaneous contaminants;
  - (iv) the taxpayer shall make a good faith effort to utilize recovered material generated within the state to the extent available at a competitive price and meeting the applicable grade and quality standards; and,
  - (v) the percentage of recovered material received from outside the state and used to supply the manufacturer's recycling facility.
- (e) Sales and use tax credits shall not exceed the sales and use tax liability in any one year, and shall not be carried forward to following taxable years.
- (f) Sales and use tax credits shall be given on a one time basis for a particular purchase;
- (g) The taxpayer shall refund sales and use tax credits for purchases which are transferred out of the state;
- (h) Sales and use tax credits shall not affect deductions for normal depreciation.

Section 6. [Tax Credits for Using Interstate Recovered Material] The income and sales tax credits are reduced on an equal percentage basis, based on the percentage of recovered material received from outside the state and used to supply the manufacturer's recycling facility.

Section 7. [Real and Tangible Property Tax Exemption]

- (a) Local governments are authorized and enabled to reduce or eliminate local property taxes for manufacturer's recycling facilities.
- (b) Such facilities may be exclusively manufacturers of recycled material or products or such manufacturer's recycling facilities may operate in conjunction with virgin material manufacturing facilities.
- (c) For facilities which do not exclusively manufacture recycling products or materials, the exemption percentage shall not exceed the percentage of recycled materials or products handled at the facility.

Section 8. [Expiration Date] The credits provided in this Act shall apply to investments in expansion of manufacturer's recycling facilities, which are purchased, acquired, placed in service or started up operations on or after the effective date of this Act; or, tax credit shall apply to purchases of machinery, equipment and supplies at ongoing manufacturer's recycling facilities. This Act shall expire and no longer be effective on December 31, 1998.

Section 9. [Rules to be Authorized] The state tax agency and environmental regulatory agency shall develop such rules and procedures to administer this Act, in conjunction with representatives of manufacturing recycling industries and the general public.

Section 10. [Repealer]

Section 11. [Effective Date]

APPENDIX K  
1993 SESSION  
ENGROSSED

HP7151408

HOUSE BILL NO. 1606

House Amendments in [ ] - February 1, 1993

A BILL to amend and reenact § 11-47 of the Code of Virginia, relating to procurement preferences.

Patrons—Plum, Almand, Davies, Quillen, Scott, Van Lanningham, Van Yahres and Watkins;  
Senators: Gartlan and Howell

Referred to the Committee on General Laws

Be it enacted by the General Assembly of Virginia:

1. That § 11-47 of the Code of Virginia is amended and reenacted as follows:

§ 11-47. Preference for Virginia products with recycled content and Virginia firms.—A. In the case of a tie bid, preference shall be given to goods, services and construction produced in Virginia or provided by Virginia persons, firms or corporations, if such a choice is available; otherwise the tie shall be decided by lot.

B. Whenever any bidder is a resident of any other state and such state under its laws allows a resident contractor of that state a preference, a like preference may be allowed to the lowest responsible bidder who is a resident of Virginia.

C. Notwithstanding the provisions of [ subsection A subsections A and B ] , in the case of a tie bid in instances where goods are being offered, and existing price preferences have already been taken into account, preference shall be given to the bidder whose goods contain the greatest amount of recycled content.

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APPENDIX  
1993 SESSION  
ENGROSSED

HP6119408

HOUSE JOINT RESOLUTION NO. 465

House Amendments in [ ] - February 7, 1993

*Expressing the sense of the General Assembly encouraging the Commonwealth's agencies, departments and political subdivisions to purchase materials and products manufactured with, or produced from, postconsumer-recycled materials.*

Patrons—Plum, Almand, Connally, Cunningham, R.K., Davies, Dillard, Fisher, Grayson, Hull, Keating, Marshall, Mayer, McClure, Mims, O'Brien, Puller, Quillen, Rollison, Scott, Van Landingham, Van Yahres and Watkins; Senators: Gartlan, Holland, E.M., Howell and Woods

Referred to the Committee on Rules

WHEREAS, the Joint Subcommittee on Enhancing Recycling Markets, established by the 1992 General Assembly, found that purchases of materials and products with recycled content would help to stimulate the use of recovered materials in the creation of materials and products and would provide long-term markets for existing and new recovered-material users; and

WHEREAS, state government and political subdivisions represent potentially large consumers of products and materials containing recycled material; and

WHEREAS, the General Assembly recognized the role the state government can play in the stimulation of markets for recycled material when it passed legislation that gave price preferences to recycled paper products and resulted in the annual purchase of over two million dollars worth of recycled paper products; and

WHEREAS, the promotion of industries in Virginia which convert recovered material into usable materials or products would add to the economy of the Commonwealth, reduce environmental impact by reducing the disposal of otherwise useful material, save landfill space and provide entrepreneurial opportunities within the Commonwealth; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That it is the sense of the General Assembly that all governmental bodies and private entities that use governmental funds should, to the greatest extent practical, purchase products manufactured or produced from postconsumer-recycled materials, with special consideration given to recycled-content products of Virginia-based companies or which utilize recovered-material processes by Virginia-based companies.

[ The Clerk of the House of Delegates shall forward a copy of this resolution to the directors of each state agency, to the chief purchasing officer of each state agency, and to the chief elected official in each of the counties and cities of the Commonwealth. The Secretaries of the Governor's Cabinet, the Virginia Municipal League, and the Virginia Association of Counties are requested to send a copy of this resolution to each state agency for which each secretary is responsible, city managers, and county administrators, respectively, ] in order that they may be apprised of the sense of the General Assembly.

APPENDIX M  
1993 SESSION

LD6227408

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HOUSE BILL NO. 1604  
Offered January 21, 1993

A BILL to amend the Code of Virginia by adding a section numbered 11-41.01, relating to petition for recycled goods.

Patrons—Plum, Almand, Brickley, Connally, Cunningham, R.K., Davies, Dillard, Grayson, Hull, Keating, Marshall, Mayer, McClure, Mims, O'Brien, Puller, Quillen, Rollison, Scott, Van Landingham, Van Yahres and Watkins; Senators: Gartlan, Holland, E.M., Howell and Woods

Referred to the Committee on General Laws

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered 11-41.01 as follows:

§ 11-41.01. *Petition for recycled goods and products; periodic review of procurement standards.—A. Any person who believes that particular goods or products with recycled content are functionally equivalent to the same goods or products produced from virgin materials may petition the Department of General Services or an agency of the Commonwealth to include the recycled goods or product in its procurement process. The petitioner shall submit, prior to or during the procurement process, documentation which establishes that the goods or products (i) contain recycled content and (ii) 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 request determines that the documentation demonstrates that the goods or products with recycled content will meet the performance standards set forth in the applicable specifications, it shall incorporate such goods or products into its procurement process.*

*B. 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 goods and products with recycled content and shall, in developing new procedures and specifications, encourage the use of goods and products with recycled content.*

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APPENDIX  
1993 SESSION  
ENGROSSED

HP6142484

HOUSE BILL NO. 1494

House Amendments in [ ] - February 5, 1993

A BILL to amend and reenact § 10.1-1422.1 of the Code of Virginia and the second enactment of Chapter 630 of the Acts of Assembly of 1989 and to amend the Code of Virginia by adding sections numbered 10.1-1422.3 and 10.1-1422.4 and to repeal § 58.1-643 of the Code of Virginia, relating to waste tires.

Patrons—Watkins, Davies, Nelms, Plum and Van Yahres; Senator: Gartlan

Referred to the Committee on Conservation and Natural Resources

Be it enacted by the General Assembly of Virginia:

1. That § 10.1-1422.1 of the Code of Virginia is amended and reenacted and that the Code of Virginia is amended by adding sections numbered 10.1-1422.3 and 10.1-1422.4 as follows:

§ 10.1-1422.1. Disposal of waste tires.—The Department shall develop and implement a plan for the management and transportation of all waste tires in the Commonwealth. The costs of implementing such a plan, as well as the costs of any programs created by the Department pursuant to such a plan, shall be paid for out of the Waste Tire Trust Fund, pursuant to § 58.1-643.

§ 10.1-1422.3. Waste Tire Trust Fund established; use of moneys; purpose of Fund.—A. All moneys collected pursuant to § 58.1-642, minus the necessary expenses of the Department of Taxation for the administration of this tax as certified by the Tax Commissioner, shall be paid into the treasury and credited to a special nonreverting fund known as the Waste Tire Trust Fund, which is hereby established. Any moneys remaining in the Fund shall not revert to the general fund but shall remain in the Fund. Interest earned on such moneys shall remain in the Fund and be credited to it. The Department of Waste Management is authorized and empowered to release moneys from the Fund, on warrants issued by the State Comptroller, for the purposes enumerated in this section, or any regulations adopted thereunder.

B. Moneys from the Fund shall be expended to:

1. Pay the costs of implementing the waste tire plan authorized by § 10.1-1422.1, as well as the costs of any programs created by the Department pursuant to such a plan; and

2. Provide partial reimbursement to persons for the costs of using waste tires or chips or similar materials.

C. Reimbursements under § 10.1-1422.4 shall not be made until regulations establishing reimbursement procedures have become effective.

§ 10.1-1422.4. Partial reimbursement for [ ~~used~~ waste ] tires; eligibility; promulgation of regulations.—A. The intent of the partial reimbursement of costs under this section is to promote the use of waste tires by enhancing markets for waste tires or chips or similar material.

B. Any person who (i) purchases [ ~~used~~ waste ] tires generated in Virginia and who uses the tires or chips or similar materials for resource recovery or other appropriate uses as established by regulation may apply for partial reimbursement of the cost of purchasing the tires or chips or similar materials or (ii) uses but does not purchase waste tires or chips or similar materials for resource recovery or other appropriate uses as established by regulation may apply for a reimbursement of part of the cost of such use.

C. To be eligible for the reimbursement (i) the waste tires or chips or similar materials shall be generated in Virginia, and (ii) the user of the waste tires shall be the end user of the waste tires or chips or similar materials. The end user does not have to be located in Virginia.

D. Reimbursements from the Waste Tire Trust Fund shall be made quarterly. Any costs reimbursed under this section shall not exceed seventy-five percent of the previous year's collections as certified by the Department of Taxation.



1 E. The Board shall promulgate regulations necessary to carry out the provisions of this  
2 section. The regulations shall include, but not be limited to:

- 3 1. Defining the types of uses eligible for partial reimbursement;
- 4 2. Establishing procedures for applying for and processing of reimbursements; and
- 5 3. Establishing the amount of reimbursement.

6 F. For the purposes of this section "end user" means (i) for resource recovery, the  
7 person who utilizes the heat content or other forms of energy from the incineration or  
8 pyrolysis of waste tires, chips or similar materials and (ii) for other eligible uses of waste  
9 tires, the last person who uses the tires, chips, or similar materials to make a product  
10 with economic value. If the waste tire is processed by more than one person in becoming  
11 a product, the end user is the last person to use the tire as a tire, as tire chips, or as  
12 similar material. A person who produces tire chips or similar materials and gives or sells  
13 them to another person to use is not an end user.

14 2. That the second enactment of Chapter 630 of the Acts of Assembly of 1989 is amended  
15 and reenacted as follows:

16 2. That the provisions of this act shall become effective on January 1, 1990 and shall  
17 expire on December 31, 1994 .

18 3. That § 58.1-643 of the Code of Virginia is repealed.

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APPENDIX O-1  
1993 SESSION

LD6838408

HOUSE BILL NO. 1865

Offered January 26, 1993

A BILL to amend and reenact §§ 58.1-338 and 58.1-445.1 of the Code of Virginia and to repeal the second enactment clause, as amended, of Chapter 709 of the 1990 Acts of Assembly, relating to tax credits for purchase of machinery and equipment for processing recyclable materials.

Patrons—Davies, Plum, Van Yahres and Watkins; Senators: Houck and Reasor

Referred to the Committee on Finance

Be it enacted by the General Assembly of Virginia:

1. That §§ 58.1-338 and 58.1-445.1 of the Code of Virginia are amended and reenacted as follows:

§ 58.1-338. Tax credit for purchase of machinery and equipment for processing recyclable materials and for related basic research.—A. Any individual shall be allowed a credit against the tax imposed pursuant to § 58.1-320 in an amount equal to ten percent of the purchase price paid during the taxable year for machinery and equipment used in manufacturing facilities or plant units which manufacture, process, compound, or produce recycled items of tangible personal property, at fixed locations within the Commonwealth, for sale. For purposes of determining "purchase price paid" under this section, the taxpayer may use the original total capitalized cost of such machinery and equipment, less capitalized interest. The Department of Waste Management shall certify that such machinery and equipment are integral to the recycling process before the taxpayer shall be entitled to the tax credit under this section. The taxpayer shall also submit purchase receipts and , invoices , and such other documentation as may be necessary to confirm the taxpayer's statement of purchase price paid, with the income tax return to verify the amount of purchase price paid for the recycling machinery and equipment.

B. A ten percent credit shall also be allowed for "basic research expenses" expended in Virginia, eligible for deduction for federal purposes, whether or not actually deducted, related to the (i) development of technology, including computer software, intended for application in producing machinery and equipment to manufacture, process, compound, or produce recycled items of tangible personal property for sale or (ii) development of technology, including computer software, intended to enhance the applications of recovered materials in products containing recycled content. The credit shall be claimed in the year the basic research expenses are incurred.

C. The total credit allowed under this section shall not exceed forty percent of the Virginia income tax liability of such taxpayer in the taxable year of purchase or expense prior to claiming the credit authorized by this section.

D. Any tax credit not used for the taxable year in which the purchase price on recycling machinery and equipment was paid or the basic research expenses incurred may be carried over for credit against the individual's income taxes in the five succeeding taxable years until the total credit amount is used.

E. For purposes of this section, the amount of any credit attributable to the purchase of recycling machinery and equipment or incurring basic research expenses by a partnership or electing small business corporation (S corporation) shall be allocated to the individual partners or shareholders in proportion to their ownership or interest in the partnership or S corporation.

§ 58.1-445.1. Tax credit for purchase of machinery and equipment for processing recycled materials.—A. A corporation shall be allowed a credit against the tax imposed pursuant to § 58.1-400 in an amount equal to ten percent of the purchase price paid during the taxable year for machinery and equipment used in manufacturing facilities or plant units which manufacture, process, compound, or produce recycled items of tangible personal property, at fixed locations within the Commonwealth, for sale. For purposes of

1 determining "purchase price paid" under this section, the taxpayer may use the original  
 2 total capitalized cost of such machinery and equipment, less capitalized interest. The  
 3 Department of Waste Management shall certify that such machinery and equipment are  
 4 integral to the recycling process before the corporation shall be entitled to the tax credit  
 5 under this section. The corporation shall also submit purchase receipts and , invoices , and  
 6 such other documentation as may be necessary to confirm the taxpayer's statement of  
 7 purchase price paid, with the income tax return to verify the amount of purchase price  
 8 paid for the recycling machinery and equipment.

9 B. A ten percent credit shall also be allowed for "basic research expenses" expended in  
 10 Virginia, eligible for deduction for federal purposes, whether or not actually deducted,  
 11 related to the (i) development of technology, including computer software, intended for  
 12 application in producing machinery and equipment to manufacture, process, compound, or  
 13 produce recycled items of tangible personal property for sale or (ii) development of  
 14 technology, including computer software, intended to enhance the applications of recovered  
 15 materials in products containing recycled content. The credit shall be claimed in the year  
 16 the basic research expenses are incurred.

17 C. The total credit allowed under this section shall not exceed forty percent of the  
 18 Virginia income tax liability of such taxpayer in the taxable year of purchase prior to  
 19 claiming the credit authorized by this section.

20 ~~B.~~ D. Any tax credit not used for the taxable year in which the purchase price on  
 21 recycling machinery and equipment was paid or the basic research expenses incurred may  
 22 be carried over for credit against the corporation's income taxes in the five succeeding  
 23 taxable years until the total credit amount is used.

24 2. That the second enactment clause, as amended, of Chapter 709 of the Acts of Assembly  
 25 of 1990 is repealed.

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Date: _____	Date: _____
_____ Clerk of the House of Delegates	_____ Clerk of the Senate

APPENDIX O-2  
1993 SESSION

VIRGINIA ACTS OF ASSEMBLY - CHAPTER 585

*An Act to amend and reenact §§ 58.1-338 and 58.1-445.1 of the Code of Virginia and to amend the second enactment, as amended, of Chapter 709 of the 1990 Acts of Assembly, relating to tax credits for purchase of machinery and equipment for processing recyclable materials.*

[H 1865]

Approved MAR 25 1993

Be it enacted by the General Assembly of Virginia:

1. That §§ 58.1-338 and 58.1-445.1 of the Code of Virginia are amended and reenacted as follows:

§ 58.1-338. Tax credit for purchase of machinery and equipment for processing recyclable materials.—A. Any individual shall be allowed a credit against the tax imposed pursuant to § 58.1-320 in an amount equal to ten percent of the purchase price paid during the taxable year for machinery and equipment used *exclusively in or on the premises of* manufacturing facilities or plant units which manufacture, process, compound, or produce ~~recycled~~ items of tangible personal property from recyclable materials, at fixed locations within the Commonwealth, for sale. *For purposes of determining "purchase price paid" under this section, the taxpayer may use the original total capitalized cost of such machinery and equipment, less capitalized interest.* The Department of Waste Management shall certify that such machinery and equipment are integral to the recycling process before the taxpayer shall be entitled to the tax credit under this section. The taxpayer shall also submit purchase receipts and, invoices, and such other documentation as may be necessary to confirm the taxpayer's statement of purchase price paid, with the income tax return to verify the amount of purchase price paid for the recycling machinery and equipment.

The total credit allowed under this section in any taxable year shall not exceed forty percent of the Virginia income tax liability of such taxpayer in the taxable year of purchase or expense prior to claiming the credit authorized by this section.

B. Any tax credit not used for the taxable year in which the purchase price on recycling machinery and equipment was paid may be carried over for credit against the individual's income taxes in the five succeeding taxable years until the total credit amount is used.

C. For purposes of this section, the amount of any credit attributable to the purchase of recycling machinery and equipment by a partnership or electing small business corporation (S corporation) shall be allocated to the individual partners or shareholders in proportion to their ownership or interest in the partnership or S corporation.

§ 58.1-445.1. Tax credit for purchase of machinery and equipment for processing recyclable materials.—A. A corporation shall be allowed a credit against the tax imposed pursuant to § 58.1-400 in an amount equal to ten percent of the purchase price paid during the taxable year for machinery and equipment used *exclusively in or on the premises of* manufacturing facilities or plant units which manufacture, process, compound, or produce ~~recycled~~ items of tangible personal property from recyclable materials, at fixed locations within the Commonwealth, for sale. *For purposes of determining "purchase price paid" under this section, the taxpayer may use the original total capitalized cost of such machinery and equipment, less capitalized interest.* The Department of Waste Management shall certify that such machinery and equipment are integral to the recycling process before the corporation shall be entitled to the tax credit under this section. The corporation shall also submit purchase receipts and, invoices, and such other documentation as may be necessary to confirm the taxpayer's statement of purchase price paid, with the income tax return to verify the amount of purchase price paid for the recycling machinery and equipment.

The total credit allowed under this section in any taxable year shall not exceed forty percent of the Virginia income tax liability of such taxpayer in the taxable year of purchase prior to claiming the credit authorized by this section.

B. Any tax credit not used for the taxable year in which the purchase price on recycling machinery and equipment was paid may be carried over for credit against the corporation's income taxes in the five succeeding taxable years until the total credit amount is used.

2. That the second enactment, as amended, of Chapter 709 of the 1990 Acts of Assembly is

amended and reenacted as follows:

2. That the provisions of this act shall be effective for all taxable years beginning on and after January 1, ~~1991~~ 1993 , but before January 1, ~~1995~~ 1996 ; however, the expiration of this act shall not affect unused credits which may be carried over by the taxpayer in succeeding taxable years.

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President of the Senate

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Speaker of the House of Delegates

Approved:

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Governor

**APPENDIX P**  
**1993 SESSION**

LD6270408

**HOUSE BILL NO. 1605**

Offered January 21, 1993

*A BILL to amend and reenact §§ 2.1-1.7 and 9-6.25:1 of the Code of Virginia and to amend the Code of Virginia by adding in Title 9 a chapter numbered 22.11, consisting of sections numbered 9-145.47, 9-145.48, and 9-145.49, relating to establishing the Virginia Recycling Markets Development Council.*

Patrons—Plum, Almand, Quillen, Scott, Van Landingham, Van Yahres and Watkins;  
Senators: Gartlan and Howell

Referred to the Committee on General Laws

Be it enacted by the General Assembly of Virginia:

1. That §§ 2.1-1.7 and 9-6.25:1 of the Code of Virginia are amended and reenacted and that the Code of Virginia is amended by adding in Title 9 a chapter numbered 22.11, consisting of sections numbered 9-145.47, 9-145.48 and 9-145.49 as follows:

§ 2.1-1.7. State councils.—A. There shall be, in addition to such others as may be established by law, the following permanent collegial bodies either affiliated with more than one agency or independent of an agency within the executive branch:

- Agricultural Council, Virginia
- Alcohol and Drug Abuse Problems, Governor's Council on
- Apprenticeship Council
- Blue Ridge Regional Education and Training Council
- Child Day Care and Early Childhood Programs, Virginia Council on
- Child Day-Care Council
- Citizens' Advisory Council on Furnishing and Interpreting the Executive Mansion
- Commonwealth's Attorneys' Services Council
- Developmental Disabilities Planning Council, Virginia
- Disability Services Council
- Equal Employment Opportunity Council, Virginia
- Health Services Cost Review Council, Virginia
- Housing for the Disabled, Interagency Coordinating Council on
- Human Rights, Council on
- Human Services Information and Referral Advisory Council
- Indians, Council on
- Interagency Coordinating Council, Virginia
- Job Training Coordinating Council, Governor's
- Land Evaluation Advisory Council
- Local Debt, State Council on
- Long-Term Care Council
- Maternal and Child Health Council
- Military Advisory Council, Virginia
- Needs of Handicapped Persons, Overall Advisory Council on the
- Prevention, Virginia Council on Coordinating
- Public Records Advisory Council, State
- Rate-setting for Children's Facilities, Interdepartmental Council on
- Revenue Estimates, Advisory Council on
- Southside Virginia Marketing Council
- Specialized Transportation Council
- State Health Benefits Advisory Council
- Status of Women, Council on the
- Virginia Recycling Markets Development Council*

1 B. Notwithstanding the definition for "council" as provided in § 2.1-1.2, the following  
2 entities shall be referred to as councils:

3 (Effective until April 1, 1993) Environment, Council on the  
4 Council on Information Management  
5 Higher Education, State Council of  
6 World Trade Council, Virginia.

7 § 9-6.25:1. Advisory boards, commissions and councils.—There shall be, in addition to  
8 such others as may be designated in accordance with § 9-6.25, the following advisory  
9 boards, commissions and councils within the executive branch:

10 Advisory Board for the Department for the Deaf and Hard-of-Hearing  
11 Advisory Board for the Department for the Aging  
12 Advisory Board on Child Abuse and Neglect  
13 Advisory Board on Medicare and Medicaid  
14 Advisory Board on Occupational Therapy  
15 Advisory Board on Physical Therapy to the Board of Medicine  
16 Advisory Board on Respiratory Therapy to the Board of Medicine  
17 Advisory Board on Teacher Education and Licensure  
18 Advisory Council on Revenue Estimates  
19 Appomattox State Scenic River Advisory Board  
20 Aquaculture Advisory Board  
21 Art and Architectural Review Board  
22 (Effective until July 1, 1994) Board for the Visually Handicapped  
23 Board of Directors, Virginia Truck and Ornaments Research Station  
24 Board of Forestry  
25 Board of Health Professions  
26 Board of Military Affairs  
27 (Effective until July 1, 1994) Board of Rehabilitative Services  
28 Board of Transportation Safety  
29 Board of Trustees of the Family and Children's Trust Fund  
30 Board of Visitors, Gunston Hall Plantation  
31 Board on Veterans' Affairs  
32 Catoctin Creek State Scenic River Advisory Board  
33 Cave Board  
34 Chickahominy State Scenic River Advisory Board  
35 Clinch Scenic River Advisory Board  
36 Coal Surface Mining Reclamation Fund Advisory Board  
37 Council on Indians  
38 Council on the Status of Women  
39 Emergency Medical Services Advisory Board  
40 Falls of the James Committee  
41 Forensic Science Advisory Board  
42 Goose Creek Scenic River Advisory Board  
43 Governor's Council on Alcohol and Drug Abuse Problems  
44 Governor's Mined Land Reclamation Advisory Committee  
45 Hemophilia Advisory Board  
46 Human Services Information and Referral Advisory Council  
47 Industrial Development Services Advisory Board  
48 Interagency Coordinating Council on Housing for the Disabled  
49 Interdepartmental Board of the State Department of Minority Business Enterprise  
50 Laboratory Services Advisory Board  
51 Local Advisory Board to the Blue Ridge Community College  
52 Local Advisory Board to the Central Virginia Community College  
53 Local Advisory Board to the Dabney S. Lancaster Community College  
54 Local Advisory Board to the Danville Community College

- 1 Local Advisory Board to the Eastern Shore Community College
- 2 Local Advisory Board to the Germanna Community College
- 3 Local Advisory Board to the J. Sargeant Reynolds Community College
- 4 Local Advisory Board to the John Tyler Community College
- 5 Local Advisory Board to the Lord Fairfax Community College
- 6 Local Advisory Board to the Mountain Empire Community College
- 7 Local Advisory Board to the New River Community College
- 8 Local Advisory Board to the Northern Virginia Community College
- 9 Local Advisory Board to the Patrick Henry Community College
- 10 Local Advisory Board to the Paul D. Camp Community College
- 11 Local Advisory Board to the Piedmont Virginia Community College
- 12 Local Advisory Board to the Rappahannock Community College
- 13 Local Advisory Board to the Southwest Virginia Community College
- 14 Local Advisory Board to the Thomas Nelson Community College
- 15 Local Advisory Board to the Tidewater Community College
- 16 Local Advisory Board to the Virginia Highlands Community College
- 17 Local Advisory Board to the Virginia Western Community College
- 18 Local Advisory Board to the Wytheville Community College
- 19 Long-Term Care Council
- 20 Maternal and Child Health Council
- 21 Medical Advisory Board, Department of Motor Vehicles
- 22 Medical Board of the Virginia Retirement System
- 23 Migrant and Seasonal Farmworkers Board
- 24 Motor Vehicle Dealer's Advisory Board
- 25 Nottoway State Scenic River Advisory Board
- 26 Personnel Advisory Board
- 27 Plant Pollination Advisory Board
- 28 Private College Advisory Board
- 29 Private Security Services Advisory Board
- 30 Psychiatric Advisory Board
- 31 Radiation Advisory Board
- 32 Rappahannock Scenic River Advisory Board
- 33 Recreational Fishing Advisory Board, Virginia
- 34 Reforestation Board
- 35 Retirement System Review Board
- 36 Rockfish State Scenic River Advisory Board
- 37 Shenandoah State Scenic River Advisory Board
- 38 Small Business Advisory Board
- 39 Small Business Environmental Compliance Advisory Board
- 40 St. Mary's Scenic River Advisory Committee
- 41 State Advisory Board on Air Pollution
- 42 State Advisory Board for the Virginia Employment Commission
- 43 State Building Code Technical Review Board
- 44 State Council on Local Debt
- 45 State Health Benefits Advisory Council
- 46 State Insurance Advisory Board
- 47 State Land Evaluation Advisory Council
- 48 State Networking Users Advisory Board
- 49 State Public Records Advisory Council
- 50 Staunton Scenic River Advisory Committee
- 51 Telecommunications Relay Service Advisory Board
- 52 Tourism and Travel Services Advisory Board
- 53 Toxic Substances Advisory Board
- 54 Virginia Advisory Commission on Intergovernmental Relations



- 1 Virginia Coal Research and Development Advisory Board
- 2 Virginia Commission for the Arts
- 3 Virginia Commission on the Bicentennial of the United States Constitution
- 4 Virginia Council on Coordinating Prevention
- 5 Virginia Equal Employment Opportunity Council
- 6 Virginia Interagency Coordinating Council
- 7 Virginia Military Advisory Council
- 8 Virginia Mine Safety Board
- 9 Virginia Public Buildings Board
- 10 *Virginia Recycling Markets Development Council*
- 11 Virginia Transplant Council
- 12 Virginia War Memorial Foundation
- 13 Virginia Water Resources Research Center, Statewide Advisory Board
- 14 Virginia Winegrowers Advisory Board.

15 *CHAPTER 22.11.*

16 *VIRGINIA RECYCLING MARKETS DEVELOPMENT COUNCIL.*

17 *§ 9-145.47. The Virginia Recycling Markets Development Council established; duties and*  
 18 *responsibilities.—A. The Virginia Recycling Markets Development Council is hereby*  
 19 *established and shall be referred to in the chapter as the Council. The Council shall have*  
 20 *the following functions:*

21 *1. To promote and coordinate state agencies' and authorities' efforts to enhance*  
 22 *markets for recycled or recovered materials;*

23 *2. To promote the purchase of products made from recycled or recovered material;*

24 *3. To identify and evaluate financial and other incentives which may attract new*  
 25 *businesses that can use recycled or recovered materials generated in Virginia;*

26 *4. To identify barriers to the development of markets for recycled materials including*  
 27 *existing state policies, regulations and procedures, and recommend alternatives to*  
 28 *overcome such obstacles;*

29 *5. To develop recommendations for the establishment of a regional or interstate*  
 30 *marketing system for recycled materials;*

31 *6. To encourage the use of uniform recycling definitions and standards throughout the*  
 32 *state;*

33 *7. To promote and encourage public/private market development initiatives; and*

34 *8. To report annually its findings and recommendations to the Governor and the*  
 35 *General Assembly.*

36 *B. The Council shall develop and monitor the implementation of a plan to strengthen*  
 37 *Virginia's recycling infrastructure and markets which will (i) improve the supply and*  
 38 *quantity of recyclables available, (ii) expand the capacity of collectors, processors and*  
 39 *manufacturers to handle and use secondary materials, and (iii) incorporate strategies to*  
 40 *increase the use of specific materials.*

41 *§ 9-145.48. Membership; meetings; and staffing.—A. The Council shall be composed of*  
 42 *nineteen members as follows: the Directors, or a policy-making designee, of the*  
 43 *Departments of Economic Development, Environmental Quality, General Services and*  
 44 *Transportation; and fifteen citizen members appointed by the Governor. The citizen*  
 45 *members shall be appointed from among residents of the Commonwealth who are*  
 46 *knowledgeable about recycling and the development of markets for recyclable materials. Of*  
 47 *the fifteen citizen members one member shall be a representative of county governments*  
 48 *selected from nominations submitted by the Virginia Association of Counties; one member*  
 49 *representing municipal government selected from nominations submitted by the Virginia*  
 50 *Municipal League; one member representing urban Planning District Commissions and one*  
 51 *member representing rural Planning District Commissions selected from nominations*  
 52 *submitted from the Association of Planning Districts; one member from the general public;*  
 53 *and one representative each, selected from nominations submitted by recognized industry*  
 54 *associations representing solid waste collection and disposal, recycling, glass, paper,*

1 aluminum, plastic, tire, oil, scrap metal and organic waste.

2 B. Citizen members of the Council shall serve four-year terms. They shall not receive a  
3 per diem, compensation for their service, or travel expenses.

4 C. The Council shall elect a chairman and vice chairman annually from among its  
5 members. The Council shall meet at least quarterly on such dates and at such times as  
6 they determine. Ten members of the Council shall constitute a quorum.

7 D. Staff support shall be provided by the members of the Council.

8 § 9-145.49. Cooperation of other agencies.—All agencies of the Commonwealth shall  
9 cooperate with the Council and, upon request, assist the Council in the performance of its  
10 duties and responsibilities.

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APPENDIX Q  
1993 SESSION

LD6118408

HOUSE JOINT RESOLUTION NO. 487

Offered January 22, 1993

Expressing the sense of the General Assembly that the Department of Economic Development develop a program to promote industries that utilize or produce pulp from recovered newsprint.

Patrons—Van Yahres, Davies, Plum and Watkins; Senator: Gartlan

Referred to the Committee on Rules

WHEREAS, approximately 15 percent of the estimated 382,000 tons of newsprint generated in the Commonwealth is recycled each year, and even with the expansion of the Bear Island Paper Company's facility to recycle 60,000 tons of newsprint annually, approximately 65 percent of newsprint generated in the Commonwealth will not be recycled here; and

WHEREAS, pursuant to HJR 150 (1990), the Department of Waste Management convened the Virginia Recycled Newsprint Task Force to study the means of increasing the production and use of recycled newsprint; and

WHEREAS, the Recycled Newsprint Task Force recommended that the Virginia Department of Economic Development should be encouraged to develop a program to assist established businesses in the Commonwealth and attract new industries that utilize old newsprint in their manufacturing process; and

WHEREAS, the Joint Subcommittee Studying Enhanced Recycling Markets, established by the 1992 General Assembly, received testimony that the newsprint industry is expanding and developing methods to convert old newsprint into usable pulp and that the location and expansion of such facilities within the Commonwealth would benefit Virginia's economy, recycling efforts, and solid waste management; and

WHEREAS, the Department of Economic Development has assisted recycling-related clients in (i) obtaining financing, (ii) locating markets and recycled material; (iii) business expansion; and (iv) the transfer of technology; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That it is the sense of the General Assembly that the Department of Economic Development should continue to assist existing industries and to attract new ones to Virginia that (i) utilize old newsprint in their manufacturing processes or (ii) convert old newsprint into usable pulp.

The Clerk of the House of Delegates shall forward a copy of this resolution to the Director of the Department of Economic Development in order that the Department of Economic Development may be apprised of the sense of the General Assembly.

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**APPENDIX R**  
**1994 SESSION**

LD4930408

**HOUSE JOINT RESOLUTION NO. 67**

Offered January 20, 1994

*Requesting the Virginia Recycling Market Development Council to examine certain measures which enhance the use of recycled materials.*

Patrons—Plum, Almand, Connally, Darner, Davies, Keating, Mayer, Scott, Van Landingham, Van Yahres and Watkins; Senators: Gartlan and Marye

Referred to Committee on Rules

WHEREAS, during its two year deliberations the Joint Subcommittee on Enhancing End-Use Markets for Recycled Materials has considered a range of options for increasing the market for recycled materials and goods; and

WHEREAS, the work of the joint subcommittee has resulted in the adoption by the General Assembly of measures which (i) expand the business and individual tax credit for the purchase of machinery and equipment used for processing recyclable materials, (ii) provide reimbursement for the end users of waste tires, and (iii) revise the Commonwealth's procurement statutes to allow for the purchase of more goods with recycled content; and

WHEREAS, one measure, which assures that the work of the joint subcommittee will be continued, is the establishment of the Virginia Recycling Markets Development Council; and

WHEREAS, the Council is to develop and monitor the implementation of a plan to strengthen Virginia's recycling infrastructure and markets; and

WHEREAS, House Joint Resolution No. 466 contemplated that the joint subcommittee would have an opportunity to meet with the new Council so as to provide some continuity in the effort to create markets for recycled materials; and

WHEREAS, due to a delay in the appointment of members to the Council, no such transition occurred; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Virginia Recycling Markets Development Council, in fulfilling its legislative mandate, is requested to do the following:

1. Develop and adopt a mission statement to provide specific guidance to the Council over time;

2. Appoint a liaison person to coordinate the work of the Council and the EPA-funded recycling and economic development study being conducted by the Institute for Local Self-Reliance;

3. Review the current statutory recycling goals for the purpose of determining whether such percentage goals should be increased or modified to reflect the difficulties of collecting and marketing recyclables being experienced by the rural areas of the Commonwealth. Consideration should also be given to whether an emphasis should be placed on source reductions and reuse efforts rather than recycling goals;

4. Review the model legislation endorsed by the RENEWS Subcommittee of the Southern Legislature Conference; and

5. Conduct a thorough examination of the recycling enterprise zone concept, and if found to be effective, recommend appropriate legislation; and, be it

RESOLVED FURTHER, That the Clerk of the House of Delegates transmit a copy of this resolution to each member of the Virginia Recycling Markets Development Council.

APPENDIX S  
1994 SESSION

LD4913198

HOUSE BILL NO. 325

Offered January 20, 1994

A BILL to amend and reenact §§ 58.1-338 and 58.1-445.1 of the Code of Virginia, relating to tax credits for research and development of recycling technologies.

Patrons—Davies, Mayer, Plum, Van Yahres and Watkins; Senators: Gartlan and Marye

Referred to Committee on Finance

Be it enacted by the General Assembly of Virginia:

1. That §§ 58.1-338 and 58.1-445.1 of the Code of Virginia are amended and reenacted as follows:

§ 58.1-338. (Applicable for all taxable years beginning on and after January 1, 1993, but before January 1, 1996) Tax credit for purchase of machinery and equipment for processing recyclable materials and for related basic research.

A. Any individual shall be allowed a credit against the tax imposed pursuant to § 58.1-320 in an amount equal to ten percent of the purchase price paid during the taxable year for machinery and equipment used exclusively in or on the premises of manufacturing facilities or plant units which manufacture, process, compound, or produce items of tangible personal property from recyclable materials, within the Commonwealth, for sale. For purposes of determining "purchase price paid" under this section, the taxpayer may use the original total capitalized cost of such machinery and equipment, less capitalized interest. The Department of ~~Waste Management~~ *Environmental Quality* shall certify that such machinery and equipment are integral to the recycling process before the taxpayer shall be entitled to the tax credit under this section. The taxpayer shall also submit purchase receipts, invoices, and such other documentation as may be necessary to confirm the taxpayer's statement of purchase price paid, with the income tax return to verify the amount of purchase price paid for the recycling machinery and equipment.

The total credit allowed under this section in any taxable year shall not exceed forty percent of the Virginia income tax liability of such taxpayer.

B. A ten percent credit shall also be allowed for "basic research expenses" expended in Virginia and eligible for deduction for federal purposes, whether or not actually deducted, related to the (i) development of technology, including computer software, intended for application in producing machinery and equipment to manufacture, process, compound, or produce recycled items of tangible personal property for sale or (ii) development of technology, including computer software, intended to enhance the applications of recovered materials in products containing recycled content. The credit shall be claimed in the year in which the basic research expenses are incurred.

C. Any tax credit not used for the taxable year in which the purchase price on recycling machinery and equipment was paid or the basic research expenses incurred may be carried over for credit against the individual's income taxes in the five succeeding taxable years until the total credit amount is used.

D. For purposes of this section, the amount of any credit attributable to the purchase of recycling machinery and equipment or incurred as a basic research expense by a partnership or electing small business corporation (S corporation) shall be allocated to the individual partners or shareholders in proportion to their ownership or interest in the partnership or S corporation.

§ 58.1-445.1. (Applicable for taxable years beginning on and after January 1, 1993, but before January 1, 1996) Tax credit for purchase of machinery and equipment for processing recyclable materials and for related basic research.

A. A corporation shall be allowed a credit against the tax imposed pursuant to § 58.1-400 in an amount equal to ten percent of the purchase price paid during the taxable year for machinery and equipment used exclusively in or on the premises of manufacturing facilities or plant units which manufacture, process, compound, or produce items of tangible

1 personal property from recyclable materials, within the Commonwealth, for sale. For  
 2 purposes of determining "purchase price paid" under this section, the taxpayer may use  
 3 the original total capitalized cost of such machinery and equipment, less capitalized  
 4 interest. The Department of Waste Management *Environmental Quality* shall certify that  
 5 such machinery and equipment are integral to the recycling process before the corporation  
 6 shall be entitled to the tax credit under this section. The corporation shall also submit  
 7 purchase receipts, invoices, and such other documentation as may be necessary to confirm  
 8 the taxpayer's statement of purchase price paid, with the income tax return to verify the  
 9 amount of purchase price paid for the recycling machinery and equipment.

10 The total credit allowed under this section in any taxable year shall not exceed forty  
 11 percent of the Virginia income tax liability of such taxpayer.

12 *B. A ten percent credit shall also be allowed for "basic research expenses" expended in*  
 13 *Virginia and eligible for deduction for federal purposes, whether or not actually deducted,*  
 14 *related to the (i) development of technology, including computer software, intended for*  
 15 *application in producing machinery and equipment to manufacture, process, compound, or*  
 16 *produce recycled items of tangible personal property for sale or (ii) development of*  
 17 *technology, including computer software, intended to enhance the applications of recovered*  
 18 *materials in products containing recycled content. The credit shall be claimed in the year*  
 19 *in which the basic research expenses are incurred.*

20 *B. C. Any tax credit not used for the taxable year in which the purchase price on*  
 21 *recycling machinery and equipment was paid or the basic research expenses incurred may*  
 22 *be carried over for credit against the corporation's income taxes in the five succeeding*  
 23 *taxable years until the total credit amount is used.*

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