

**REPORT OF THE  
DEPARTMENT OF WASTE MANAGEMENT ON**

**Promoting the Procurement  
and Use of Recycled  
Products by Agencies  
of the Commonwealth**

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



**HOUSE DOCUMENT NO. 33**

**COMMONWEALTH OF VIRGINIA  
RICHMOND  
1991**

TABLE OF CONTENTS

Introduction .....	1
I. Identifying The Barriers .....	4
II. Solution Alternatives .....	10
III. Recommendations .....	16
Summary .....	20
References .....	21
APPENDIX A - House Joint Resolution Number 158 .....	A-1
APPENDIX B - Partial List of Recycled Paper Products .....	B-1
Purchased by The Commonwealth In 1989	
APPENDIX C - U.S. EPA Minimum Recycled Content Standards ..	C-1
for Paper and Paper Product Procurement	

## INTRODUCTION

In 1990, the General Assembly adopted House Joint Resolution 158 (HJR 158), which directed the Department of Waste Management to conduct a study of how the Commonwealth can most effectively promote the procurement and use of recycled products by state agencies. Specifically, HJR 158 requested the Department to identify the current barriers to the procurement and use of recycled products by state agencies, and to develop recommendations for removing such barriers. A copy of HJR 158 is included in APPENDIX A.

This report focusses on identifying the barriers that inhibit the public sector from increasing its procurement levels of recycled products and lists a variety of plausible solution alternatives for overcoming those barriers. Finally, specific recommendations are presented for increasing state agency procurement.

Throughout the course of its study, the Department repeatedly encountered barriers to the procurement of products made from recovered materials. These barriers are not unique to state agencies or even the public sector in general. While this report is specific to state agency procurement in Virginia, the ultimate success of large-scale recycling depends on wide spread consumer demand -- public sector and private citizens and businesses -- for recycled products.

A study of the procurement aspect of recycling is inseparable from the study of recycling as a whole. A discussion of recycling centers on two phenomena: the events that led the U.S. into becoming a "throw away society", and, the more recent intervention by governments into what was essentially a free market system. These phenomena are described below.

### The Throw Away Society

Since the early 1900s, the U.S. has become known for its wasteful practices. In 1986, our nation generated close to 50% of the world's solid and industrial waste, and 95% of the world's hazardous and special wastes.(1) The consequences of this massive disposal of materials include contamination of ground and surface water, uncontrolled gas migration, excessive waste of material and energy resources, and depletion of existing landfill capacity.(2)

Federal policies that initially developed and expanded the economic growth of the nation by underpricing its natural resources led to the United States' history of wastefulness and lack of recycling initiative and conservation ethic.(3) The

underpricing of natural resources encouraged excessive consumption of these resources. Oil and mining depletion allowances, timber capital gains, gasoline and sales taxes, discriminatory freight rates, and other tax legislation have also encouraged consumption, while discouraging conservation.(4) Over time, these policies to create incentives for new businesses became rigid economic rights protected by statute and in many cases, the use of virgin resources is still less expensive than using recycled.(5)

### Recent Recycling Legislation

One of the most persistent trouble spots for recycling is the fact that much of the more recent legislation addresses only certain aspects of recycling and not the complete recycling system. In practice, recycling is a system of interrelated activities. In lay terms recycling can be broken down into three distinct but mutually dependent components: collection, re-processing, and procurement. These components are represented by the three arrows in the recycling symbol. Unless all three components function in unison, large-scale recycling will be difficult to establish.

Faced with an ever increasing amount of solid waste and a rapidly diminishing number of active landfills (the disposal option of choice), governments began turning to recycling as a viable waste management option. During the last decade, a great deal of recycling legislation and regulations were adopted. This recent legislation can be traced through a series of evolutionary phases.

First, a few states enacted laws aimed at mandatory separation and collection of recyclable materials from the waste stream. These laws were intended to recognize recycling as a viable waste management strategy. These laws also served to demonstrate to the private sector that governments were committed to collecting recyclables and making them available to manufacturers. This initial legislation was successful in that it created an awareness of the role of recycling plays in integrative solid waste management programs. Because this earlier collection oriented legislation sometimes resulted in an oversupply of certain materials in the marketplace, these laws also highlighted the need for more comprehensive recycling legislation.

As it became apparent that collection alone was not enough, many states began introducing legislation which created financial incentives for manufacturing companies that utilize the collected material. These initiatives provided some benefit, but on their

own did not prove sufficient to ensure the success of large-scale recycling. There was relatively little interest on the part of some manufacturers to make any changes in their processing technology to begin using recycled instead of virgin materials. The reason being that the new collection oriented legislation often created a rapid increase in the supply of recyclable materials that was not balanced with an offsetting increase in the demand for the finished products made from those materials.

Subsequently, several states have enacted laws and established guidelines designed to increase public procurement of recycled products. Presently, governments have begun to implement this last phase of recent recycling legislation through the creation of procurement programs for recycled products. The collective effect of this legislation on recycling is still being evaluated.

### Virginia's Recycling Initiatives

In Virginia, measures have been undertaken to establish comprehensive recycling programs. The General Assembly has directed all local governments in the Commonwealth to develop solid waste management plans that include a recycling program (HB 1743, 1989). The Virginia Waste Management Board has adopted a policy to promote the development of integrative and comprehensive waste management programs that include the following components of a waste management hierarchy:

- o Planning
- o Source Reduction
- o Reuse
- o Recycling
- o Resource Recovery (Waste-To-Energy)
- o Incineration (Volume Reduction)
- o Landfilling

An integrative and comprehensive solid waste management plan should include: an evaluation of all the elements of the hierarchy, an assessment of the impacts of the elements, and a structure to unite these elements in an effective, practical approach toward meeting the solid waste management objectives of the community.

The Department of Waste Management has been given the responsibility to review the local government plans to ensure that: 1) the plans adhere to the Department's regulations and, 2) the plans are feasible. That is, all aspects of the solid waste management plan are sufficient to attain the desired objectives.

In their continuing evaluation of recycling's progress in the Commonwealth, the General Assembly, the Virginia Waste Management Board, and the Department of Waste Management have targeted procurement of recycled materials and finished products as an area that needs improvement. HJR 158, which initiated this report, was drafted from a recommendation developed by a legislative joint subcommittee (HJR 384, 1989). That subcommittee was created to study alternatives for establishing incentives to increase recycling's likelihood of success in the Commonwealth.

Virginia has recognized the importance of procurement to the success of recycling and has taken steps to address increasing public procurement of recycled products. These actions are indication that the Commonwealth is firmly committed to its stated goal of encouraging and promoting recycling to the maximum practical extent.

The remainder of this report is divided into 3 sections. Section I. IDENTIFYING THE BARRIERS, provides a description of each major procurement barrier problem and its history. Section II. SOLUTION ALTERNATIVES, is a discussion of the possible means for removing each barrier to the procurement and use of recycled products. Section III. RECOMMENDATIONS, includes a listing and explanation of the Department of Waste Management's recommendations about how the Commonwealth can most effectively encourage the procurement of recycled products by state agencies.

## **I. IDENTIFYING THE BARRIERS**

This section of the report contains a listing and description of each major procurement barrier identified by the Department of Waste Management during its research. The barriers described below are not intended to be listed in order of magnitude.

### **Barrier # 1 Lack Of Standards For Recycled Products**

Recycling has many definitions which center upon the viewer's objectives. Citizens and environmentalists extol the virtues of recycling as a means for conserving valuable resources and energy, and preserving the environment. The private sector has realized the profit potential and/or cost saving opportunities recycling presents.

In most cases, government initially embraced recycling as a means to divert materials from disposal and treatment facilities. The result was legislation which mandated the separation of recyclable materials from the waste stream. Often, this initial legislation did not address the procurement aspect of recycling.

In its research, the Department determined that in almost every example of federal and state recycling legislation reviewed, there is little consistency in how recycling is defined. More importantly, the Department also discovered inconsistency among public procurement agencies for specifications of recycled products. This lack of standard specifications for recycling is perhaps the single most important factor that must be overcome before wide spread public procurement of recycled products can be achieved. Accordingly, the Department has identified this lack of standardization as the primary barrier to increasing state agency procurement of recycled products.

The federal government has developed procurement guidelines for several categories of products which can contain recycled or secondary material. These guidelines were developed by the United States Environmental Agency (EPA) pursuant to the Resource Conservation and Recovery Act (RCRA)(6). The products referenced in the guidelines include: cement and concrete containing fly ash, paper and paper products, lubricating oils containing re-refined oil, retread tires, and building insulation products. The EPA's procurement guidelines refer to a series of minimum recycled content standards for each category these products that the federal government procures. The guidelines also pertain to state and local government agencies that use federal funding to procure these products.

The federal guidelines for paper and paper product minimum recycled content standards have raised some concern about their effectiveness for the overall recycling objectives of the public sector. The concern centers on EPA's inclusion of minimum post-consumer paper content standards for (recycled) paper.

In brief, EPA's recycled standards require that fixed percentages of "waste paper" be used in the production of the recycled paper and paper products. Waste paper refers to paper that was recovered from paper mills and/or from production lines of secondary manufacturers, and post-consumer paper that has been recovered from the final consumer. A section of the EPA's "Procurement Guideline for Paper and Paper Products" (40 CFR Part 250, 53 FR 23546, June 1988), which lists the minimum recycled content standards is shown in APPENDIX D.

Waste management and manufacturing industry professionals have questioned the benefit of the separate requirement for post consumer content. In a recent statement to the EPA, the Institute of Scrap Recycling Industries (ISRI) summarized this concern by saying, "the specification of a distinct post-consumer content standard within the existing minimum content standards will not reduce the volume of material in the solid waste stream -- a primary goal of recycling."(7)

The rationale behind this statement is that by designating a separate and often higher percentage for post-consumer paper content, the EPA may be inadvertently causing paper manufacturers to send previously used scrap paper to the landfill so that they can utilize paper collected from the public. This would be contradictory to the government's objective of diverting material from treatment and disposal facilities through recycling.

The example above illustrates that not only is there a need for standard product specifications for recycling, the specifications must be consistent with the overall recycling program objectives.

Because federal and state governments have not yet developed consistent specifications for recycled products, manufacturers remain uncertain about the viability of producing products with recycled content. It is unlikely that many manufacturers will be willing to develop separate products to meet each of the various mandatory content standards enacted by each state. Instead, as always, the private sector can be expected to provide only the products which have the highest demand and/or provide the greatest opportunity to generate a profit.

As a result, because they do not represent a large market, those states that independently develop specifications for recycled products may not be able to locate products that meet their unique minimum recycled content standards. Even if these states do find a source for the products, they will probably have to pay premium prices because they are a small market.

On the other hand, states that have adopted recycled content standards that are consistent with those of other states will probably be presented with a choice of manufacturers that offer products to meet the minimum content standards. In short, if the demand is large enough, the private sector will respond.

The Commonwealth of Virginia, like most state and local governments, has a separate agency responsible for procurement -- the Department of General Services. The Department of General Services oversees the majority of the contracts for goods and services purchased by the state for everyday use. Also, this Department develops the specifications for the generic products that are destined to be available for purchase on state contract.

Moreover, most agencies of the Commonwealth have a designated procurement staff position or positions, usually in their administration or fiscal divisions. At the agency level, it is the responsibility of the procurement staff specializes in identifying the specific needs of the agency and developing product specifications that meet those needs.



Until compatible specifications are developed, it will be more difficult for the Commonwealth's agencies to significantly, or perhaps cost-effectively, increase their procurement of all types of recycled products.

## Barrier # 2 Existence Of Federal Incentives For Virgin Materials

The United States Congress has enacted numerous incentives for virgin materials that have and/or continue to affect recycling. These incentives include investment tax credits, capital gains tax credits, and depletion allowances.

Preferential tax treatment of virgin materials has had a detrimental effect on the recycling industry. In the past, capital gains for the timber industry have been the basis of discriminatory charges on the part of paper recyclers. However, with the changes brought about through the Tax Reform Act of 1986, there will no longer be an exclusion for capital gains.(8) Unfortunately for recycling, this long-standing exclusion had its desired effect, the creation of a wide spread, firmly established domestic timber industry. Moreover, many paper and paper product manufacturers became vertically integrated companies to take advantage of the capital gains exclusion and now are partners in or owners of virgin timber operations. While the repeal of the capital gains exclusion will eliminate one of the unfair competitive advantages for virgin materials, the paper industry is not expected to quickly forego its capital investments in timber to begin using scrap paper.

Another federal incentive for virgin materials is the depletion allowance. In general, a depletion allowance creates a tax deduction that is similar to depreciation. Originally the allowances were designed to encourage the production of natural resources. The allowances cover over 100 minerals, natural gas, and petroleum. The allowances also include the "expensing" of exploration and development costs. The expensing or immediate writing off of these costs is a major tax advantage. In effect, the larger deduction in the first year means a company receives all the tax benefit at once. In other words, that year's taxes are deferred to a later year. The tax dollars they owe now can be paid later with no penalty like an interest-free loan.(9)

The Tax Reform Act of 1986 repealed the Federal Investment Tax Credit (ITC) for property placed in service after December 31, 1985. Prior to 1986 both the virgin and recycling manufacturing industries utilized ITCs. Because large-scale recycling is a relatively new activity, the manufacturers of products containing virgin materials were the primary beneficiaries of ITCs. Similar to the situation with the former capital gains exclusions, once an industrial company has made a

capital investment, it is unlikely that it will be cost effective for that company to make additional investments for recycling facilities and equipment unless new economic incentives are made available.

The Tax Reform Act of 1986 has had one other effect on recycling. The Act reduced the amount of financing available through tax-exempt Industrial Development Bonds. The significant change to this financing was the unified volume cap. The cap is now substantially less than the previous funds available for private activity bonds and competition for the funds has been higher. Once again, recycling is at a disadvantage to virgin manufacturing because increased recycling did not become a national objective until after this funding cap was established.

### Barrier # 3 Lack Of Demand-Side Incentives

The recent recycling legislation referenced earlier has certainly had an impact on the supply of recycled material available to the marketplace. Because this legislation was intended to create additional supply, it has had little effect on increasing the procurement of recycled products by the public sector.

Several states, including Virginia, have enacted legislation aimed at improving the markets for the materials collected for recycling within their borders. Economists refer to this activity as supply-side incentives. For the most part, these incentives have focused on tax credits or exemptions to manufacturers who produce products with recycled content. Common supply-side incentives are sales tax exemptions or income tax credits on the purchase of equipment for processing recyclable material or manufacturing products with recycled content. Another typical incentive is to reduce or waive the business property tax for recycling equipment and facilities.

While these supply-side incentives have encouraged some manufacturers in other states (Virginia's tax credits do not go into effect until 1991) to invest in recycling, the Department of Waste Management was unable to locate conclusive evidence that these types of incentives have had measurable impact on increasing public procurement of recycled products.

It is clear that tax credits produce positive benefits, but the crucial question is whether the cost-to-benefit ratio is sufficiently low. In other words, the investment tax credit will cost (Virginia) a certain amount of money in foregone revenues and administrative costs, and in return it is expected that (Virginia) will benefit in terms of increased economic benefits and in increased recovery of materials from solid waste.(10)

However, the effect of most of these tax incentives on increasing the procurement of recycled products by the public sector, thereby improving the whole recycling system, is unsubstantiated. Therefore, until additional incentives aimed at increasing demand for recycled products are established and more materials are recovered from the waste stream to satisfy this additional demand, the benefit of the tax credits may prove insufficient to off-set the additional costs incurred by the Commonwealth.

Virginia, along with numerous other states and several local governments, has established some demand-side incentives to recycled product manufacturers. Demand-side incentives are designed to increase recycling levels through the creation of opportunities for manufacturers of recycled products to be more competitive in the public sector market. In 1989, the General Assembly amended the Code of Virginia by establishing a price preference for recycled paper purchased for use by state agencies (Section 11-47.2). In 1990, the Code was amended to extend the price preference to all paper products made with recycled content purchased by the Commonwealth (Section 11-47.2). The 1990 amendments also extended the ability to create price preferences for recycled paper and paper products to local governments in Virginia (Section 15.1-11.5:01).

The General Assembly passed additional demand-side legislation in 1990. One of these pieces of legislation is HB 287, which requires all state agencies and institutions to implement recycling collection programs and encourages the agencies to purchase and use recycled products wherever feasible. Also adopted in 1990 was House Joint Resolution 153, which requests the Commonwealth to adopt the practice of purchasing recycled paper for use by the General Assembly.

Because Virginia's price preference laws are so new, it will require additional time to evaluate their overall impact. During the course of this study the Department has learned that many of the paper and paper products the Commonwealth currently purchases already contain recycled fibers (and have for some time). An evaluation of purchases before and after the price preference laws went into effect should be conducted to determine if the new laws have had the desired effect. A partial listing of the recycled paper products purchased by the Commonwealth during 1989 was prepared by the Department of General Services at the request of the Department of Waste Management. The list appears as APPENDIX B.

#### Barrier # 4 Lack Of Training For Procurement Agencies and Staff

Many public procurement agencies and employees are unfamiliar with recycled products. Also, most state and local government agencies enjoy some degree of autonomy when it comes to making purchasing decisions, particularly in setting product composition and performance specifications. Until comprehensive recycling and waste management training programs are developed and implemented for all public agencies and institutions, the importance of procurement in recycling may be overlooked by public purchasing agents.

Development of this training program will require a cooperative effort by all of the Commonwealth's agencies. The Department of Waste Management's statutory authority pertaining to agency recycling ends at providing information and regulatory oversight to its sister agencies. Generally, procurement regulatory oversight and procurement information dissemination are responsibilities of the Department of General Services. The Department of Personnel and Training also has responsibilities for providing education and information to state agencies and employees. Moreover, most state agencies are headquartered in the Richmond area, but many agencies operate facilities in locations all across the state. Purchasing decisions and general information transmittal to these outlying operations are often carried out by the main office. Therefore, it will be difficult for any one agency, acting independently, to deliver a recycling educational program to every agency and facility of the Commonwealth.

Finally, the current budgetary reductions will impact the scope of a new educational program.

The four barriers discussed above are the major obstacles the Commonwealth needs to address to measurably increase its total purchase of recycled products. Although other barriers do exist, they are generally related to one of these four. The Department of Waste Management is confident that by addressing these barriers to the procurement of recycled products, the Commonwealth can significantly increase the total amount of recycled products and materials it purchases. In the next section, SOLUTION ALTERNATIVES, the means for overcoming the barriers to procurement are listed and evaluated.

## II. SOLUTION ALTERNATIVES

In this section, the potential means for addressing each of the four major procurement barriers are examined. While other solution alternatives do exist, for the purposes of this study,

the Department of Waste Management has limited this discussion to the alternatives that the Commonwealth has the ability to implement. As in the previous section, the barriers listed below are not intended to be in rank order.

#### Barrier # 1 Lack Of Standards For Recycled Products

The ideal solution would be to develop a single set of recycled content standards that would be adopted nationwide. Obviously, no state or group of states has the legal authority to establish national standards. Therefore, in order for national recycling standards to become a reality, the Federal government must take action. The Commonwealth could approach Congress through available communication channels to express encouragement for the development of national standards.

Because it took a lawsuit filed by an environmental organization to get the EPA to develop the recycled content guidelines required by Federal law, it may be some time before national standards for recycling are in place. In the absence of these standards, Virginia must develop standards that are feasible from the private sector's viewpoint and consistent with the state's waste management goals.

There are several courses of action the state could initiate to overcome this barrier. First, the market development proposal prepared by the Center for Innovative Technology (CIT), at the request of the Governor and the Secretary of Natural Resources, could be expanded to include the development of these standards. That proposal (due in January, 1991) recommends the creation of several task forces or working groups to develop strategies to enhance the success of recycling. Both the Department of Waste Management and the Department of Economic Development are listed as vital members of those task forces. In order for those task forces to develop meaningful recommendations for increasing public procurement of recycled products, the Department of General Services and the procurement staff from some of the larger agencies should also be appointed to the task force developing recycling standards.

Another solution is for Virginia to participate with other states in a regional effort to develop common definitions and standards for recycling. This alternative has precedent in the Commonwealth in other matters, particularly in cooperative procurement. The Department of General Services is currently involved in the development of a potential purchasing agreement for recycled copier paper with the states of Delaware and Maryland. A regional effort to establish standards is already under way in the Northeast and Virginia could explore joining that body. A similar effort is being implemented in the

Southeast. The Metropolitan Washington (D.C.) Council of Governments has developed cooperative purchasing agreements for products with recycled content and is also exploring the creation of standard definitions and specifications for recycled products.

The state could also consider adopting the recycling standards being developed by any of several national engineering organizations and recycling trade associations. One of those organizations is the American Society for Testing and Materials (ASTM). ASTM is widely recognized as an objective authority on material and product specifications. The standards developed by ASTM are incorporated across the U.S. into the procurement contract language of the private and public sector alike. Although ASTM does not currently have standards for every recyclable material, the recycling standards it has developed are already in use in procurement contracts. Before the Commonwealth adopts the ASTM standards, an evaluation must be made about how widespread the use of these standards has become. Because ASTM's standards are very recent (the plastic standards were published in September of 1990)(11), such an evaluation will require at least one year's time. Therefore, the results of an ASTM recycling standards evaluation should not be expected before the 1992 Session of the Virginia General Assembly.

Another organization that is developing recycling standards is the National Recycling Coalition (NRC). The NRC established a Recycling Advisory Council in 1988 to develop recommendations for recycling on a national scale. The Council consists of a blue-ribbon panel of public and private sector recycling/waste management professionals. The Council's Policy Committee has been charged with developing a generic definition of recycling.

If the committee recommended in the CIT market development proposal is determined to be inappropriate for the task, a special advisory group could be formed in Virginia to develop recommendations for recycling standards. The group could be comprised of representatives from the private sector and local governments, as well as state agencies. This group would be performing tasks similar to the recommendations contained in the CIT proposal but would be more narrowly focused. Decisions would need to be made about who should provide oversight for this group and about how its recommendations should be implemented.

Finally, members of the Virginia General Assembly may wish to study the issue of recycling definitions and standards as they relate to procurement. Given the effectiveness of a previous study subcommittee (SJR 132, 1987) looking into methods for improving recycling, this is an attractive solution. Regardless of where and by whom the recommendations for increasing the Commonwealth's procurement of recycled products are generated, it should be anticipated that some degree of legislative action will be required to implement those recommendations.

Until feasible recycling standards are adopted, it will be difficult for the Department of General Services and procurement staff at each agency to begin reviewing and revising the material and product specifications in their current procurement contracts.

### Barrier # 2 Existence Of Federal Incentives For Virgin Materials

HJR 158 requested the Department of Waste Management to study any existing incentives that favor the use of virgin materials over recycled. The incentives described in Section I of this report are all the result of federal legislation. Because addressing this barrier will require Congressional action, there are questions as to whether the Commonwealth, acting on its own, will be effective in lobbying for the desired changes. Also, an intense lobbying effort in opposition to changes in the existing policies should be anticipated from the virgin material producers and users.

Virginia could join a coalition of other states, and/or support recycling industries and associations that are interested in overturning the federal incentives for virgin materials. Similarly, these groups could collectively lobby for new legislation that would allow recycled material or finished recycled products to more effectively compete with virgin materials and products.

### Barrier # 3 Lack Of Demand-Side Incentives

The Department of Waste Management is convinced that creation of additional demand-side incentives will be the most expedient method to increase the procurement of recycled products by state agencies.

Most of the recycling legislation in the United States, including Virginia's, is directed toward the collection (supply-side) aspect of recycling. Even the tax credits Virginia established in 1990 for the purchase of recycling equipment are supply-side oriented.

Until more substantiated demand for finished products containing recycled materials is created, the private sector is unlikely to mass produce those products. As a result, recycled products will not be widely available and those recycled products that are available will probably be more expensive than products made from virgin materials.

There are several alternatives for demand-side incentives. The Commonwealth could make a much firmer commitment to the procurement of recycled products. The citizens of Virginia,

through the actions of their elected officials, have expressed a desire to improve recycling's likelihood for success. The General Assembly should re-evaluate the Commonwealth's goals for recycling. If maximum diversion of materials from treatment and disposal facilities is a primary goal of Virginia's recycling program, the General Assembly should require that the Commonwealth increase its procurement levels of recycled products across the board.

However, by diverting materials from treatment and disposal facilities through recycling, the resulting increase in the production of recycled products will create other burdens to the environment that must be taken into account. For example, paper recycling mills will be generating larger amounts of sludge in their deinking and repulping processes. Increased recycling should not come at the expense of the other waste management alternatives that comprise the waste management hierarchy. Recycling must be balanced with all the other management alternatives in the hierarchy to ensure maximum protection of the environment.

Still, the Commonwealth should encourage additional state agency procurement of recycled products to help alleviate the present oversupply of collected material in the marketplace. This will involve the establishment of demand-side incentives such as: fixed minimum procurement levels of recycled products, higher price preferences for recycled products, adherence to the procurement guidelines the EPA has established, 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, a preference for recycled products produced in the Commonwealth, and a requirement that all contractors with the Commonwealth (that obtain contracts over some specific dollar amount) file "Recycling Impact Statements".(12)

The Commonwealth could consider the creation of an advisory committee or task force to evaluate demand-side incentives and prepare recommendations to the General Assembly. Again, the task force proposed by CIT would be an appropriate choice, as would a joint subcommittee of the General Assembly.

Since taxpayer dollars are used by the state agencies for procurement, the General Assembly may determine that it is appropriate to offer voters the opportunity to set a permanent price preference cap for recycled products purchased by the state. As the federal budget deficit and the looming national recession have negatively impacted the Commonwealth's own budget, the state needs to seriously consider the implications of spending more to purchase recycled products.



Finally, by entering into cooperative purchasing agreements with other states to purchase recycled products, Virginia will be enhancing its ability to purchase higher quantities (at lower prices) of recycled products. At the same time, the state will be assuring the marketplace of sufficient demand for recycled products.

#### Barrier # 4 Lack Of Training For Procurement Agencies And Staff

The solution to this barrier (create and carry out a training program for state agencies) is easily recognizable, but it will require significant resources and time to implement. The General Assembly has already directed the Department of Waste Management to develop recycling program planning assistance guidelines for all agencies and institutions of the Commonwealth (HB 287, 1990).

One of the first steps in establishing a recycling program at each agency is the designation of an agency recycling coordinator. Presently, the Department is considering a series of educational workshops for these agency coordinators to introduce the program planning guidelines and provide a forum for discussion about recycling. The Department of Waste Management will also be providing listings of manufacturers and distributors for the wide range of recycled products currently available to the other state agencies.

Certainly the procurement aspect of recycling will be a high priority in the planning guidelines the Department is preparing. Above all else, there is a need to educate all agencies about the quality and wide range of recycled products available in the marketplace. Products made from recycled materials are still considered by many purchasing agents to be inferior to those made from virgin materials. Overcoming this negative attitude is the primary goal of the Department of Waste Management's education program for state agency procurement personnel.

Because the Department of General Services is responsible for distribution of information about state procurement and the training of state procurement contracting officers, a joint educational program developed by both General Services and Waste Management will be the most effective. At this time the two agencies have begun discussions about how such a program could be carried out. Unfortunately, anticipated budget reductions have forced the Department of General Services to cancel its planned Public Procurement Forum '91. The Forum has been one of General Service's primary opportunities to provide instruction and promote professional development to purchasing officers across the Commonwealth.

The Department of Waste Management has the responsibility to promote increased recycling to all the citizens, businesses, and organizations located in the Commonwealth. Part of this promotional effort must be to educate all parties about the importance of procurement to the success of recycling. Accordingly, the Department will be continuing its statewide recycling promotional programs, and, will be enhancing its information publications and market databases by creating a general listing (available upon request) of recycled product manufacturers and distributors.

Finally, the Department of Waste Management will need the assistance of the Department of Education in developing a recycling procurement training program for the procurement contract officers throughout Virginia's school systems.

### III. RECOMMENDATIONS

This section of the report is comprised of the Department of Waste Management's recommendations to overcome the procurement barriers that are inhibiting the agencies of the Commonwealth from purchasing higher levels of recycled products. The recommendations below are not listed in order of any priority.

#### Recommendation 1. Establish an Advisory Committee/Task Force to Evaluate the Procurement Issue

The Commonwealth needs to create an advisory body to evaluate all aspects of public procurement of recycled products. This body would develop recommendations for altering the state's procurement policies to allow increased purchasing of recycled materials. In order to develop these policy recommendations, this advisory body must first establish exactly what the Commonwealth's overall goals for recycling are. In addition, the advisory body must be provided sufficient resources (staff and finances) and time to carry out its agenda. At a minimum this advisory body should:

- o delineate the Commonwealth's goals for recycling;
- o develop single, workable definitions of recycling and related terms that are consistent with national or regional definitions;
- o conduct an analysis of demand-side incentives the Commonwealth is capable of initiating;
- o evaluate where responsibility for execution of the various aspects of the Commonwealth's recycling program should be assigned;

- o and determine the success of the Commonwealth's present recycling efforts.

## Recommendation 2. Establish Demand-Side Incentives

For the purposes of this report, the Department of Waste Management has concluded that the Commonwealth's goal for recycling, as it relates to waste management, is to maximize recovery of material from the waste stream (without additional consequence to the environment) and redirect that material for introduction back into the marketplace as beneficial end products.

Most 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.(13)

In that regard, the Department strongly recommends that the Commonwealth consider establishing the demand-side incentives to increase state agency procurement of recycled products discussed below. In effect, by closing the recycling loop, Virginia will be improving the success of its local governments' recycling collection programs.

The Commonwealth and the federal government should adopt a joint procurement approach in which both organizations continue to develop the present system (i.e. the EPA establishes guidelines for procurement of recycled products and the state adopts them). At the same time, Virginia should establish an alternative procedure for those products and materials that have not yet been addressed by the EPA.

This procedure would allow a private sector manufacturer to petition a procuring agency to substitute a product made from recycled material for an item presently being procured that is made from virgin sources. Once the entrepreneur met his or her burden of proof, the burden would then shift to the government procuring agency to prove that 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 required to purchase the recycled product subject to any pre-established budget or price preference restrictions.(14)

Another demand-side incentive the Commonwealth should implement is a complete review of all the procurement procedures and specifications in the contracts at each agency. Wherever practicable, any existing procedure or specification that is determined to be discriminatory against recycled materials or products should be revised. This will require a major effort on the part of procuring agencies and procurement contract officers. However, if the state is to substantially increase its purchases of recycled products, this process should be undertaken. Until the review and revisions are completed, the petition procedure described above will allow manufacturers of recycled products to compete for state contracts.

In addition, the Commonwealth should require all contractors obtaining government contracts to file certification statements, hereinafter referred to as Recycling Impact Statements. These statements would certify that the contractor has used, to the extent practicable, products composed of recovered materials. The statements would also certify that the contractor has reviewed purchase requirements and has made changes to ensure the use of recycled materials in lieu of materials from virgin sources, wherever practicable. Each contractor would also have to certify the amounts of recovered materials used in each contract. Any contractor falsifying the information on these statements should be disbarred from any future contracts with the Commonwealth.(15)

Such a procedure is patterned after the Environmental Impact Statements (EIS) that are required under the National Environmental Policy Act (42 U.S.C. Section 4331-4322, 1982 and Supp. IV 1986) to determine the impact of government actions on the environment. The Recycling Impact Statement would differ from an EIS in that it seeks a positive statement (recovered material used) rather than a negative statement (no harm will occur to the environment).(16)

The theory behind the Recycling Impact Statements is to ensure that whenever the Commonwealth's funds are used for procurement, protection of the environment is assured and compliance with Virginia's policy goals is maintained. Requiring a public disclosure statement will help ensure that the Commonwealth's recycling goals and procurement policies are being carried out.

Recommendation 3. Allow Time for the Existing Recycling Efforts to be Fully Implemented.

A number of recycling program initiatives are currently in a planning or introductory phase in Virginia. These initiatives include the planning guidelines and education program being developed by the Department of Waste Management, the mandatory (HB 1743, 1989) recycling collection programs being planned and

implemented by local governments across the state, and the market development efforts being undertaken by the Department of Economic Development. Most of these initiatives are very recent, as the mandatory recycling rates for local governments do not go into effect until 1991. Therefore, sufficient data do not exist to make many of the necessary policy decisions for improving recycling in the Commonwealth.

The Department of Waste Management will be receiving solid waste managements plans from local government during 1991. Those plans will describe the recycling programs that will be implemented in every jurisdiction in Virginia. The plans will also provide the estimated costs to local governments of the mandatory recycling programs. Also, local governments are required to submit recycling rate reports to the Department of Waste Management beginning in the first quarter of 1992. Once these plans and reports have been reviewed by the Department, a summary report will be developed that highlights the problem areas that local recycling programs are experiencing. This summary report should be routed to the advisory body discussed above in Recommendation 1. The report will be extremely beneficial in determining where state assistance should be directed.

Until the local programs have been implemented and the Department has evaluated the progress reports, it will be difficult to determine where the recycling system needs improving. Therefore, the Commonwealth should allow the Department of Waste Management ample time to evaluate the success of the local government and state agency recycling programs before introducing additional recycling legislation.

Finally, until the Department of Waste Management has had an opportunity to implement its recycling education program for state agencies, it may be counterproductive to address wholesale changes to the state's procurement policy. Agency procurement levels should be expected to increase once the education program is introduced. The agencies will be introduced to the wide range of recycled products available through the distribution of information contained in the Recycled Products Guide, currently one of the most widely recognized sources of information about recycled products.(17) Information will be made available through the regular procurement information channels like the Department of General Services' Purchases & Supply Information Bulletin.

#### Recommendation 4 Join Regional Cooperative Purchasing Organizations

The Commonwealth should consider participation in regional purchasing programs with other states. These programs will represent a larger, more attractive market to manufacturers and

will allow the state to procure recycled products at reduced prices through volume purchasing. The Department of General Services should continue its evaluation of existing cooperative programs and determine if Virginia should host a new program. General Services has already been in contact with other states regarding cooperative purchasing of recycled paper.

## SUMMARY

The Commonwealth has expressed a goal of increasing the amount of recycled products purchased by state agencies and institutions. To achieve that goal will require the removal of numerous barriers to the procurement of recycled products. These barriers include: existing financial incentives to manufactures that favor use of virgin materials, a lack of generic standard definitions and product specifications for recycling and recycled products, a lack of appreciation for the complexities of the complete recycling system, the lack of sufficient demand for recycled products, and ignorance about the availability and quality of recycled products. Until these issues are overcome, increasing the procurement levels of all recycled products by the Commonwealth's agencies will be difficult.

First and most importantly, the Commonwealth should adopt standard specifications for recycled products. Once these standards are in place, a major effort must be initiated to review all of the purchases made by the Commonwealth. Wherever material and/or product specifications are determined to be unfavorable to recycling, they must be removed or substantiated. This will require a significant expenditure of resources on the part of the states procurement agencies and contract officers.

However, until the state develops specifications which can be met by manufacturers of recycled products, there is no reason to expect competitive bidding from these manufacturers for state contracts. Until the review and revision of the states purchasing process is completed, a new process which allows the private sector to petition for change in procurement practices is a viable alternative.

Finally, the Commonwealth needs to evaluate its commitment to recycling, particularly as it pertains to the procurement aspect. Assuring the success of recycling may require substantial changes in the state's long-standing procurement policies and will undoubtedly require significant expenditures of public funds to implement. However, faced with the alternative of continued reliance the increasingly more expensive disposal options like incinerators and landfills, responsible recycling makes better economic sense.

## REFERENCES

1. World Resources Institute and International Institute For Environmental Development, World Resources 1986, at 252. (1986)
2. Chandler, W., **Materials Recycling: The Virtue of Necessity**, (Worldwatch Paper 56), 8-9. (1983)
3. Ruston, J., **Developing Markets For Recycled Materials**, Environmental Defense Fund Working Paper. (1988)
4. Council on Environmental Quality and The United States Department of State, The Global 2000 Report To The President, Entering the Twenty-First Century 1-5, 39-42 (1980)
5. Kovacs, W., **The Coming Era of Conservation and Industrial Utilization of Recyclable Materials**, Ecology Law Quarterly, Volume 15, Number 4, University of California, Berkeley, at 540. (1988) [hereinafter **Kovacs ELQ Article**].
6. Resource Conservation and Recovery Act, Pub. L. No. 94-580, 90 Stat. 2822. (1976)
7. **ISRI Gives Input On Post-Consumer, Sawdust**", Mill Trade Journal's Recycling Markets, at 7. (December 24, 1990)
8. Franklin Associates, Ltd., **Feasibility of Tax Incentives For Purchases of Recycling Equipment Or Recycled Products**, Final Report to Illinois Department of Energy and Natural Resources, at 4-2. (May, 1987) [hereinafter **Franklin Report**].
9. Id. at 4-3.
10. Id. at 4-28.
11. American Society for Testing and Materials, **Standard Guide for the Development of Standards Relating to the Proper Use of Recycled Plastics**, Designation: D 5033 - 90, (September, 1990)
12. **Kovacs ELQ Article**, at 609.
13. **Franklin Report**, at 7-1.

14. **Kovacs ELQ Article**, at 608.
15. **Id.** at 609.
16. **Id.** at 609.
17. **The Official RECYCLED PRODUCTS GUIDE**. Published by:  
American Recycling Market, Inc., Ogdensburg, New York.



**APPENDIX A**

**House Joint Resolution Number 158**

**GENERAL ASSEMBLY OF VIRGINIA--1990 SESSION**

**HOUSE JOINT RESOLUTION NO. 158**

*Requesting the Department of Waste Management to study how to most effectively promote the procurement and use of recycled products by state agencies.*

Agreed to by the House of Delegates, February 9, 1990

Agreed to by the Senate, March 7, 1990

WHEREAS, the 1988 Session of the General Assembly established a goal of recycling twenty-five percent of the Commonwealth's solid waste stream by 1995; and

WHEREAS, the 1989 Session of the General Assembly mandated that local governments within the Commonwealth develop and implement solid waste management plans which identify how they will achieve recycling rates of ten percent by 1991, fifteen percent by 1993, and twenty-five percent by 1995; and

WHEREAS, in an attempt to set a proper example for the residents and businesses of Virginia, the 1989 Session of the General Assembly also requested all agencies of the Commonwealth to purchase and use products manufactured from recycled materials and authorized a preference for the purchase of recycled paper in the competitive bidding process; and

WHEREAS, agencies of the Commonwealth currently utilize a large volume of products which are manufactured from virgin materials, although suitable products are available which are manufactured from recycled materials; and

WHEREAS, the Commonwealth's resources and valuable landfill space could be further conserved were products manufactured from recycled materials to be procured for and used by the agencies of the Commonwealth; and

WHEREAS, in order to most effectively promote the Commonwealth's use of products manufactured from recycled materials, it will first be necessary to identify any current barriers to the procurement of recycled products, including any exemptions, subsidies, or other means by which virgin materials are unfairly favored over recycled materials; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Department of Waste Management is requested to conduct a study of how the Commonwealth can most effectively promote the procurement and use of recycled products by state agencies. During the course of the study, the Department shall (i) identify current barriers to the procurement and use of recycled products by state agencies and (ii) develop recommendations for removing such barriers. All agencies of the Commonwealth shall assist the Department of Waste Management in this study.

The Department of Waste Management shall complete this study in time to report its findings and recommendations to the Governor and the 1991 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for processing legislative documents.

**APPENDIX B**

**Partial List of Recycled\* Paper Products Purchased by The  
Commonwealth In 1989**

<u>ITEM</u>	<u>Description</u>	<u>Cost</u>
Towels	Single-fold Unbleached	\$ 421,344
Towels	Multi-fold Unbleached	\$ 26,000
Towels	Centerfold Unbleached	\$ 71,000
Roll Towels		\$ 104,000
Towels	Single-fold Semi-Bleached	\$ 47,000
Towels	Multi-fold Semi-Bleached	\$ 171,864
Tissue	Two-ply Toilet	\$ 45,000
Tissue	One-ply Toilet	\$ 965,300
Tissue	Facial	\$ 62,000
Napkins	1/4 Fold	\$ 104,000
	1/8 Fold	\$ 57,000
	6 Fold	\$ 91,500
	8 Fold	\$ 75,500
	9 Fold	\$ 63,000

\* All items listed are made from 100% recycled fiber.

Source: Virginia Department of General Services, Division of  
Purchases and Supply

APPENDIX C

U.S. EPA Minimum Recycled Content Standards for Paper and Paper Product Procurement

	Minimum % of Recovered Materials	Minimum % of Postconsumer Recovered Materials	Minimum % of waste paper
Newsprint .....	..	40	..
High Grade (bleached printing and writing papers):			
Offset printing .....	..	..	50
Mimeo and duplicator paper .....	..	..	50
Writing (stationary) .....	..	..	50
Office paper .....	..	..	50
Paper for high-speed copiers .....	..	..	(2)
Envelopes .....	..	..	50
Form bond (computer & carbonless) .....	..	..	(2)
Book papers .....	..	..	50
Bond papers .....	..	..	50
Ledger .....	..	..	50
Cover stock .....	..	..	50
Cotton fiber papers .....	25	..	..
Tissue Products:			
Toilet tissue .....	..	20	..
Paper towels .....	..	40	..
Paper napkins .....	..	30	..
Facial tissue .....	..	5	..
Doilies .....	..	40	..
Industrial wipers .....	..	0	..
Unbleached packaging:			
Corrugated boxes .....	..	35	..
Fiber boxes .....	..	35	..
Brown papers (e.g. bags) .....	..	5	..
Recycled paperboard:			
Recycled paperboard products (Folded cartons) .....	..	80	..
Pad backing .....	..	90	..

- 1 Waste paper is defined in Section 250.4 and refers to specified post-consumer and other recovered materials.
- 2 EPA found insufficient production of these papers with recycled content to assure adequate competition.

Source: 40 CFR Part 250, Federal Register (June 22, 1988)