

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

**The Commonwealth of
Virginia Recycled Newsprint
Advisory Task Force**

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



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- * Virginia Waste Industries Association - Mr. J. Victor Arthur, III;
- * Virginia Department of Economic Development;
- * New York State Newspaper Recycling Task Force;
- * American Newspapers Publishers Association;
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EXECUTIVE SUMMARY

In 1990, responding to the mounting difficulties being encountered in the markets for old newspapers collected for recycling in the Commonwealth, the Virginia General Assembly adopted House Joint Resolution Number 150. HJR 150 directed the Department of Waste Management to study the means of increasing the production and use of recycled newsprint. The Resolution requested the Department to convene an advisory task force, comprised of representatives of newspapers published in Virginia, the recycled newsprint industry, and other interested parties, to assist in the research effort. Lastly, HJR 150 required the Department to submit its findings to the Governor and the 1991 Session of the General Assembly. A copy of HJR 150 is included in APPENDIX B.

The Task Force was asked to evaluate and make recommendations about the following subject areas:

- o The availability of recycled newsprint to the newspaper industry in the Commonwealth;
- o The establishment of guidelines for the use of recycled newsprint that are consistent with projected availability;
- o The development of alternative actions by the Commonwealth, including tax incentives and expedited regulatory approval, to increase the availability of recycled newsprint.

The Task Force members agreed that a voluntary commitment to increase the purchase and use of recycled newsprint by the Virginia newspaper industry would be the most effective means to involve the industry in the development of a comprehensive solution to the old newspaper market dilemma. Accordingly, the majority of newspaper publishers in Virginia have committed to a series of voluntary guidelines for the use of newsprint containing recycled fiber. The guidelines were developed by the Virginia Press Association membership and are listed in a resolution unanimously adopted by the Association's Board of Directors on November 3, 1990. The voluntary guidelines state that the percentage of recycled newsprint versus total consumption used by Virginia publishers be 15 percent in 1992, 20 percent in 1993, 25 percent in 1994, and 30 percent by 1995. APPENDIX D contains a copy of the Virginia Press Association's resolution.

The Task Force also evaluated other uses for old newspapers including: animal bedding, mulches and compost, and building insulation. The Task Force concluded that expanding these uses would have the most immediate and measurable impact in reducing the amount of old newspapers in Virginia's solid waste stream.

From the research and analysis conducted by the Department of Waste Management, the Virginia Press Association and the Virginia Recycled Newsprint Advisory Task Force, the following conclusions and recommendations have been developed:

- o The Commonwealth should support and promote the voluntary commitment of the newspaper industry to increase its use of recycled newsprint. The following initiatives are suggested:
 - The Virginia Waste Management Board should be encouraged to formally recognize the industry for its willingness to assist in resolving the problems currently being encountered in the markets for old newspaper.
 - The Virginia Waste Management Board should request the newspapers in the state, through the Virginia Press Association, to conduct an internal survey and submit the survey findings in an annual report to the Board. The survey and report shall provide documentation of the industry's progress in achieving its voluntary guidelines for increasing the amount of recycled newsprint used in Virginia.
 - The Departments of Waste Management and Economic Development should encourage other private sector clients to follow the example of Virginia's newspaper publishers.
 - State and local government agencies should establish and implement procurement preferences for products that contain recycled newspaper fibers.
 - The 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.
- o The Virginia Recycled Newsprint Advisory Task Force should be encouraged to continue meeting to develop strategies for increasing old newspaper recycling/utilization in the future. Particular emphasis should be placed on the recycling market proposal developed by the Center for Innovative Technology, as it pertains to the researching of new uses for old newspapers and the review of the regulatory approval process.
- o Existing markets should be expanded and new uses and markets for old newspapers developed. The Departments of Waste Management and Economic Development should provide oversight in these market initiatives.

A detailed explanation of each these recommendations appears in Part III of this report.

I. INTRODUCTION

This document summarizes the Virginia Department of Waste Management's findings from research conducted into the markets for old newspapers collected for recycling. The General Assembly requested the Department to conduct the study in House Joint Resolution Number 150 (HJR 150), adopted during the 1990 Session.

The Resolution also directed the Department to convene an advisory task force composed of representatives of newspapers published in the Commonwealth, the recycled newsprint industry and other interested parties.

During the first half of 1990, staff at the Department of Waste Management conducted preliminary research into the markets for old newspapers and recycled newsprint. A background document, summarizing the current status of the recycled newsprint industry, and related activities and legislation in other states was prepared, and a scope of work was developed for the study.

The Virginia Recycled Newsprint Advisory Task Force was assembled and began meeting in August. The Task Force membership, listed in APPENDIX C., was comprised of representatives from several newspapers published or distributed in Virginia, recycled newsprint manufacturing companies, processors and brokers of old newspaper collected for recycling, a Virginia based company which makes alternative products from old newspapers, an environmental group, the Virginia Press Association, and the Virginia Departments of Waste Management and Economic Development. Delegate Edward R. Harris (23rd District), the sponsor of HJR 150, also served on the Task Force as an Ex-Officio member.

Throughout the study, the Task Force and the Department of Waste Management staff were greatly assisted by the Virginia Press Association and its members. Much of the background information and data about the recycled newsprint industry and the "Virginia-specific numbers" that were used by the Task Force during its decision-making process were provided by the Virginia Press Association. The Association's Report and Recommendations of its internal recycling task force has been reproduced in its entirety for this document and is included as APPENDIX A.

The following sections of this document provide a discussion of the current status and trends of the old newspaper recycling marketplace and a listing and explanation of the recommendations developed by the Virginia Recycled Newsprint Advisory Task Force.

II. NEWSPAPER RECYCLING - STATUS AND TRENDS

The marketplace for old newspapers collected for recycling in Virginia and the rest of the nation is currently in a state of rapid change. State and local governments are grappling with a solid waste management dilemma. They are facing an ever growing amount of garbage, and, at the same time, a limited number of disposal options for all that trash. In addition, the costs for solid waste disposal facilities are increasing to the point where many local governments no longer have the means to finance them. As an alternative to disposal, recycling is becoming a popular strategy for helping to control waste management costs.

Virginia, like many other states, now has mandatory recycling goals for local governments. In developing their recycling collection programs, local governments are advised to target those materials in their solid waste stream that are present in sufficient quantities, have an identifiable market, and that justify the costs of separation, collection, and processing for recycling.

Because of their high visibility, there is a common misperception that old newspapers represent a significantly higher portion of the total volume of waste than they actually do. In most communities in Virginia, old newspapers will represent a substantial portion of their solid waste stream (estimates range from six to ten percent). However, for some Virginia communities, even 10 percent of the waste stream (were it all recoverable), would represent an unattractive volume to many buyers of old newspapers. Quantity is just one of the many factors which influence the old newspaper recycling industry.

The market factors which affect this industry are complex and widespread. Old newspaper recycling is truly international in scope. Strikes by shipyard dock workers in Pacific Rim countries can negatively impact the recycling collection programs of local governments in the U.S. A slowdown in the U.S. economy can reduce the demand for newsprint (recycled and virgin), because advertisers are not buying as many column inches in newspapers. Mandatory source separation laws or landfilling bans for old newspapers enacted by several heavily populated states simultaneously could undermine the pricing structure for much of the international old newspaper market by creating a supply of old newspapers far exceeding demand.

Since 55 to 60 percent of the newsprint consumed in the U.S. is imported from Canada, it is inappropriate to refer to a U.S. newsprint market, but rather, a North American market. This being the case, governments in the U.S. need to understand that they lack the ability to create a larger supply of recycled newsprint in this Country through legislation alone. A mandatory

recycled fiber content percentage law passed by one state in the U.S. can create a competitive disadvantage for several newspaper manufacturers in Canada, who cannot get a large enough supply of old newspapers to meet the mandatory percentage requirements. Conversely, by passing a mandatory content law, a state may be placing an economic burden on newspapers published in that state because recycled newsprint suppliers, wherever they are located, may elect to charge premium prices for the limited amount of recycled newsprint that is currently available.

For the reasons presented above, the states that have enacted mandatory recycled content laws also offer exemptions to the mandates for market conditions. One state has already determined the need to re-visit its mandatory content requirements, as they have proven infeasible.

Because old newspapers are a commodity, the marketplace for them is extremely sensitive to the laws of supply and demand. Before introducing mandatory recycled content legislation or implementing community recycling collection programs, government officials need to gain an appreciation of the implications of public sector intervention in the free market system and for the subtleties of commodity marketing. The remainder of this part of the report deals with the realities of today's marketplace for old newspapers and discusses market trends for the near future.

Current Status Of Recycled Newsprint Market

Before beginning a discussion of the market for old newspapers and recycled newsprint, it is necessary to describe the overall newsprint market. The newsprint business is cyclical in nature. At times, demand for newsprint will outgrow the available supply. This will prompt production expansion to satisfy the increase in demand. Due to competition and other factors, a period of overproduction usually occurs until demand catches up again. During periods of overproduction, because they are already selling at a discount all that they are producing, there is little incentive for newsprint producers to enter into new agreements to accept additional raw materials.

Unfortunately for local governments faced with new mandatory recycling rates being established throughout the nation during 1988-89, the newsprint industry was just entering a period of overproduction. In part, this led to the oversupply of old newspapers collected for recycling, and subsequently, to the collapse of the price paid for old newspapers by end-users.

Old newspapers, like most recyclable materials, have become a subject of attention for legislators and solid waste management professionals across this country. Because of the rush to recycle as a means to hold down disposal costs and conserve

dwindling landfill space and natural resources, the markets for old newspapers are experiencing the same problems as the markets for many other recyclable materials are or will be facing: an oversupply created by zealous collection programs that is not balanced with equally aggressive procurement preferences for the finished products made from the collected materials.

According to newspaper industry figures (see VPA Report APPENDIX A), in 1989, of the 13.5 million short tons of newsprint consumed in the U.S., 10.5 percent - about 1.4 million tons - contained recycled fibers. Virginia newspapers used 312,585 short tons in 1989. Of that amount, 13.3 percent - about 42,000 tons - contained recycled fibers.

It is important to note that none of the recycled newsprint purchased for consumption in Virginia is manufactured in the state. It is all purchased from producers in other states and in some instances, other countries. Likewise, the recycled newsprint consumed in Virginia does not necessarily contain any recycled fiber recovered from old newspapers collected in Virginia. For these reasons, it is difficult to develop any direct correlations between the increased use of recycled newsprint by Virginia newspapers and the markets for old newspapers collected for recycling in the state.

As pointed out by several members of the Task Force, the commitment of Virginia newspapers to increase their usage of recycled newsprint will not produce an immediate improvement in the markets for old newspapers collected by local government programs in the Commonwealth. That commitment will be beneficial towards reducing the amount of old newspapers being disposed in Virginia only in the long-term.

Newspapers publishers across the U.S. are moving towards increasing the amount of recycled newsprint they buy. However, until the production capacity of recycled newsprint manufacturers increases substantially to satisfy this new demand, the publishers will not be able to immediately commit to significant increases in the recycled percentage content of the newsprint they plan to buy. This is evident in the series of percentage increases in total consumption that the newspaper publishers in Virginia have committed to voluntarily.

Due to a projected lack of available supply of recycled newsprint, Virginia newspapers were only able to commit to increasing the 1989 purchased amount of 13.3 percent of recycled newsprint versus total consumption to 15 percent in 1992. While this increase does represent a significant amount of newsprint, the expectations of local governments and citizen environmental groups are much greater. This illustrates the common misunderstanding of the public about the need to temper social policy with the realities of efficient markets.

Increasing The Supply Of Recycled Newsprint

On the more positive side, because of the increased demand for recycled newsprint from publishers across the country, the supply of recycled newsprint on the market is expected to increase dramatically during the next several years. Accordingly, the newspaper publishers in Virginia have committed to increasing their purchase of recycled newsprint to 30% of total consumption by 1995.

There are several reasons why it will take time to increase the available supply of recycled newsprint. Presently, all of the recycled newsprint produced is already committed under contract to end-users. Additionally, regardless of the fact that a low cost of supply of raw material (old newspapers) will be made available through mandated recycling collection programs, relatively few companies are in a position to make the investment in new manufacturing facilities. The costs for a new recycled newsprint manufacturing facility, referred to as a "greenfield", approach \$400 million. While adding capacity to existing facilities is considerably less expensive, there will still be environmental barriers to overcome. This includes the time required for the preparation and processing of applications for the necessary operating permits.

Not to be overlooked is the fact that there is likely to be local opposition to proposed new facilities. In some localities, it has proven nearly as difficult politically and emotionally to site an industrial (including recycling) facility as it is to site a landfill or incinerator. Gaining local support is also time-consuming and will slow down industry's ability to increase production capacity. State and local governments should be called upon to lend assistance in educating the public to help overcome these barriers.

At this time, there is only one Virginia-based company with stated plans to establish the capability to produce recycled newsprint. That company presently operates a virgin newsprint mill in Central Virginia and is planning to add substantial capacity for manufacturing newsprint with recycled content. The company's projections for the new capacity are such that it is conceivable they could use all of the old newspapers collected in Virginia as raw material. Obviously, this would improve the market in Virginia.

The company was represented on the Task Force for this study and provided insight into the implications of meeting the conditions for obtaining the necessary operating permits from the various environmental agencies in the Commonwealth.

As a result of that input, the Task Force developed a recommendation for assisting permit applicants in going through the channels. The Task Force recognizes that while many applicants would probably prefer to see an expedited permit process, there is little long-term gain in possibly jeopardizing public health standards to improve recycling market conditions in the near-term. However, a need was expressed by Task Force members for an assistance program, perhaps even an advocate, to provide guidance to applicants throughout the entire permitting process.

In addition, the Task Force agreed that this assistance should be provided by someone outside the regulatory framework. Certainly all the regulatory agencies would be asked to contribute to the program where it relates to their functional areas, but the overall program should be overseen by a more neutral party. A similar recommendation has been made in the recycling markets proposal prepared by the Center for Innovative Technology (CIT) for the Secretaries of Natural Resources and Economic Development.

The Task Force concluded that any short-term, significant improvements in the market for old newspapers collected for recycling in Virginia must come from other users of old newspapers than recycled newsprint manufacturers. This includes companies that manufacture products such as animal bedding, cellulose insulation, hydroseeding and hydromulching, and molded packaging.

A recommendation has been developed by the Task Force to encourage state and local governments to increase their purchases of the products mentioned above. By adopting procurement policies which establish price preferences and minimum levels of procurement, governments will create an increase in demand for these products. That demand is likely to cause existing manufacturers to expand production capacity and will also attract more of these businesses to locate in Virginia.

Lack Of Standard Definitions

Another important consideration in the discussion of any topic related to recycling is the definition of the word recycling itself. The staff at the Department of Waste Management repeatedly discovered during the course of this study that there is no standard definition or interpretation of the terms "recycling", "recycled", or "pre-consumer or post-consumer waste materials", as they apply to the markets for old newspapers or newsprint. The terms are used differently by governments in almost every state. The Code of Virginia itself contains two different definitions of recycling, although they appear in two

different sections. Even spokespersons for the recycling and newspaper industries have been unable to agree on one single definition for any of these terms. To date, the federal government has not developed national standards either.

In the absence of any standard definition for recycling, the Task Force chose to establish a "working" definition of recycling for this study. For the purposes of the Task Force's recommendations and the Virginia newspaper publishers' voluntary commitments, the following definition of the physical activity of recycling was developed:

recycling: the process of collecting, separating, cleaning, and treating materials that would otherwise become solid waste and returning them to the economic stream in the form of raw materials or as finished products. The definition of recycling as a system would also include a reference to the [re]purchase aspect.

Not surprisingly, the Task Force found it a difficult challenge to determine any meaningful recycled fiber content percentage targets for newsprint used by publishers in Virginia. Rather, the Task Force chose to focus on target percentages of the total annual newsprint consumption in the Commonwealth that contained at least some recycled fiber. Therefore, the Task Force recommends that any newsprint that contains recycled fibers, regardless of the total percentage, should be considered as recycled newsprint in Virginia.

The Task Force based its decision to not recommend minimum recycled content standards on several factors. Members of the Task Force all agreed with VPA's position that supporting any recycling, no matter what level, would be helpful in solving the solid waste problem. In addition, several members commented that there is no widely accepted testing methodology for verifying recycled content percentages. In short, a 25 percent recycled sheet of newsprint looks and performs very much like a 50 percent recycled sheet. This means it would be difficult (and expensive) for newspaper buyers to verify a manufacturer's recycled content claims. Similarly, it would be difficult and costly for a government agency to prove or disprove a newspaper publisher's compliance with mandatory recycled content standards.

Overview Of Legislation Pertaining To Old Newspapers

A considerable amount of legislation and corresponding regulatory requirements has been adopted or is being considered by many state governments in the U.S. The federal government is also considering legislation pertaining to old newspapers.

Most of the legislation is relatively new; none of the bills or resolutions was passed prior to 1988. Therefore, it is difficult to document the effectiveness of the legislation at this time. The majority of the legislation adopted at the state level establishes target percentages for recycled content in the newspapers distributed in those states. In many cases the percentages are mandatory and penalties have been established for non-compliance. A summary of this legislation, compiled in July of 1990, appears in EXHIBIT 1 on the next page.

There is also recycled newsprint legislation that has been introduced at the federal level. A short summary of that legislation follows.(1)

S.1763 - Newsprint Recycling Incentives Act
(Introduced by Senators Heinz and Wirth)

This legislation would place the impetus to recycle on the newsprint manufacturer who must produce a certain percentage of product with recycled content. The EPA would set the goal at increasing the recycled content at two percent per year for the next ten years. A manufacturer who chooses not to use recycled fibers would buy "recycled credits" from deinking mills, the theory being that the latter mills would use the funds to increase capacity or lower the cost of newsprint.

S.1764 - Senator Boschwitz's Bill

This bill would place compliance on the newsprint users. It would require users to purchase 40 percent recycled content newsprint for 15 percent of their requirements by 1992; 20 percent by 1994; 30 percent by 1997 and 40 percent by 2000. Newsprint consumers could establish credits for newsprint recycled in excess of the amounts required by the bill.

In comparing these mandated target percentages against the projected aggregate supply of recycled newsprint (APPENDIX A), it appears that several of these targets will prove infeasible. The projected North American supply of recycled newsprint cannot meet the mandated recycled content percentages by the dates specified in some of the new laws. A concern should be expressed that in order to comply with the mandated percentages, in some states newspaper publishers may be forced to purchase additional recycled newsprint from outside of North America, most likely from Pacific Rim countries.

EXHIBIT 1

Summary Of Recycled Newsprint Legislation

<u>STATE</u>	<u>CONSUMPTION TAX ON VIRGIN NEWSPRINT</u>	<u>MANDATORY GOAL</u>	<u>USAGE TIMETABLE</u>	<u>STATUS</u>
1. California	None	25% 50%	1991 2000	Passed
2. Florida	10¢/ton until 10/92 50¢/ton if goal not reached	50%	1992	Passed
3. Connecticut	None	20% 90%	1993 1998	Passed (Being Reassessed)
<hr/>				
4. Illinois	10¢/ton	50%	1993	Pending
5. Kentucky		20% 40%	1991 1992	Pending
6. Maryland		20% 40%	1992 1994	Pending
7. Massachusetts	10% of list price	90%	-Recycled Content	Pending
8. Missouri		10% 50%	1993 1997	Pending
9. Nebraska	\$1. per ton			Pending
10. New Jersey		45% 90%	1990 1992	Pending
11. New York	None	11% 40%	1992 2000	Agreement w/ Publishers
12. Ohio	"buy recycle newsprint"			Pending
13. Pennsylvania	2% tax credit			Pending
14. Rhode Island		20% 90%	1993 1998	Pending
15. South Carolina		30% 50%	1994 2000	Pending
16. South Dakota	-10% of list price	10% 50%	1992 1996	Pending
17. Vermont		25% 50%	1991 2000	Pending
18. West Virginia	\$500 per day	10% 50%	1992 2000	Pending
19. Wisconsin	-10% of list price per ton	10% 50%	1991 1995	Pending

Source: Franklin Associates, Ltd. July, 1990 (2)

Because of the present trade imbalance that exists in the U.S., passing legislation that forces domestic newspaper publishers to increase their import totals of either deinked pulp or recycled newsprint does not seem to be the most prudent fiscal management practice for states to adopt. Instead, if target percentages and deadlines are to be established for increasing the amount of recycled newsprint utilized, those percentages and dates should be compatible with the capacity projections of the North American newsprint industry. In this manner, the states will be offering support to the domestic industries, and at the same time, will be assuring that the supply of old newspapers is recycled at higher rates.

Future Outlook For Recycled Newsprint

As stated earlier, the markets for old newspapers and the products made from them are in a state of rapid change. On a weekly basis, there are announcements of new developments in production technology, collection techniques, and procurement specifications in these markets. Long-term planning is critical in balancing the waste management concerns of governments with the economic limitations that steer private sector decisions.

During the past year, newsprint and paper industry analysts have been making conflicting statements about the market. Some experts recommend that government recycling collection programs strive to move their old newspapers through the export market. Other reports suggest that U.S. recycled newsprint producers in some parts of North America will soon be facing a serious shortage in the supply of old newspapers because of mandatory content legislation, and that a ban on exporting should be initiated at the federal level. As a result, there is considerable confusion on the part of local governments faced with making marketing decisions today that will affect the overall success of their solid waste management plans and recycling programs in the future.

During the fall of 1990, the market price for old newspapers began moving in a positive direction, reversing a downward trend that had begun in 1988. This turnabout, which is minimal at the present, indicates that the voluntary demands of newspaper publishers for more recycled newsprint may be beginning to affect the market. It will be interesting to see if the price for old newspaper returns to the levels that prevailed prior to the supply glut that resulted from the implementation of mandatory collection programs. Some recycling analysts have commented that the price for old newspapers may even recover to the point that old newspapers will be too valuable to be used in the smaller-scale production of products such as animal bedding and mulch.

The VPA's Report And Recommendations (APPENDIX A) contains a listing of the committed and planned recycled newsprint production capacity expansions by North American newsprint manufacturers. When these expansions are included with projections for the export market demand and the demand from other users through the year 1995, a considerable increase in the recovery rate of old newspapers from the waste stream will be required to generate a supply adequate to meet aggregate demand. The Task Force has agreed that increasing the recovery rate of any waste material to correspond with the demands of the free market system should be the optimal goal of recycling.

Between now and when the new production capacity comes on-line, several trends in recycling collection programs and old newspaper market are anticipated. For existing collection programs, efforts to maintain good working relationships with buyers will be paramount. Program managers should be concerned with establishing a history of being a supplier of high quality material. When the supply of a commodity is plentiful, as it is now for old newspapers, buyers will seek out the highest quality material and often continue to pay higher prices for it. One of the primary ways to improve the quality of the old newspapers collected is to implement a strong public education effort.

In those areas where recycling collection programs are in the planning stage or have just started up, securing a market for their old newspaper will be a definite challenge. Long-term arrangements will be sought to ensure that the old newspapers continue to move. Initially, this arrangement may not offer an attractive price for the collector, but it will establish a track record in the marketplace. All potential markets will be explored and evaluated, including export market brokers.

All collection program managers will need to be cognizant of the role quantity plays in securing markets for old newspapers. In those areas of Virginia where insufficient quantities are generated/collected to attract a buyer, cooperative arrangements with adjacent collection programs will be one solution. Finally, until markets are secured, local governments may find it feasible to store old newspaper for short periods of time (less than one year) until buyers are found.

After evaluating the present conditions and the developing trends in the recycled newsprint market discussed above, the Task Force formulated several recommendations for a plan of action. Above all other factors, the Task Force stressed the need to develop recommendations that take into account the workings of the free market system. Like most other states that have addressed this issue, a cooperative effort between the public and private sectors in Virginia needs to be established and nurtured to insure the highest degree of success in the recycling of old newspapers.

III. RECOMMENDATIONS

House Joint Resolution Number 150 requested the Department of Waste Management to develop recommendations for enhancing the means of increasing the production and use of recycled newsprint. The Department, with the assistance of the Virginia Recycled Newsprint Advisory Task Force, has concluded that improving the market for recycled newsprint is, in fact, inseparable from improving the overall market for old newspapers collected for recycling. Therefore the recommendations listed and described below refer to both recycled newsprint and old newspapers. The recommendations were developed by the Task Force and carry the full support of the Task Force membership.

RECOMMENDATION 1. The Commonwealth should support and promote the voluntary commitment of the newspaper publishers in Virginia to increase their use of recycled newsprint.

Rationale

Recycled newsprint is now and will continue to be the largest volume user of old newspapers. The newsprint industry is extremely sensitive to the laws of supply and demand, and the imposition of artificial procurement standards is likely to upset that delicate balance. The newspaper publishers in Virginia have agreed to increase their total consumption of recycled newsprint from the 1989 level of 13.3 percent to 30 percent by the year 1995. The 30 percent figure is based on the North American newspaper industry's supply capacity projections. The Task Force is convinced that a voluntary agreement between the newspaper industry and the Commonwealth of Virginia will be the most effective way to increase recycled newsprint usage in the Commonwealth at this time.

Recommendation Number 1. should be carried out through the following initiatives:

- o The Virginia Waste Management Board should be encouraged to formally recognize the newspaper industry in Virginia for their willingness to assist in resolving the difficulties currently being encountered in the markets for old newspapers collected for recycling. It is important for the Commonwealth to continue to strengthen working relationships with the private sector based upon mutual understanding and good faith.
- o The Departments of Waste Management and Economic Development should encourage other industries to follow the example of Virginia's newspaper publishers. In their outreach programs, both agencies should explain the environmental benefits and

competitive advantages businesses can realize by voluntarily supporting the Commonwealth's recycling effort. By committing to improve the recycling markets as a matter of corporate policy, industry may be able to reduce or redirect the need for legislation.

- o The Virginia Waste Management Board should request the newspaper publishers in the state to conduct an internal survey and submit the findings in an annual report to the Board. The survey and report shall provide documentation of the industry's progress in achieving its voluntary guidelines for increasing the amount of recycled newsprint used in Virginia. The intent of the report is to establish an accountability procedure to monitor the newspaper publisher's agreement with the Commonwealth. In addition, the annual report will provide the Virginia Recycled Newsprint Advisory Task Force with much needed information for its decision-making process.
- o The Virginia Department of Economic Development should be encouraged to develop a program for both assisting established businesses in the Commonwealth and attracting new industries that manufacture recycled newsprint to the state. The need for secure markets for the old newspapers that are and will continue to be collected by local governments in Virginia is well documented. The Department should consider and include aspects of the Center for Innovative Technology's recycling market proposal to the Secretaries of Natural Resources and Economic Development in the development of its assistance program. Particular attention should be given to the proposal's recommendation addressing the coordination of the operating permit application/approval process.

RECOMMENDATION 2. The Virginia Recycled Newsprint Advisory Task Force should be encouraged to continue.

Rationale

The input of the Task Force during the preparation of this report was crucial to the development of the voluntary agreement between the newspaper publishers and the Commonwealth. As recycling will continue to be a major program initiative for the Department of Waste Management for the foreseeable future, the need for involving the private sector in planning will be critical. Therefore, the Virginia Department of Waste Management should continue to sponsor the Virginia Recycled Newsprint Advisory Task Force. The Task Force has unanimously agreed to continue meeting at least on an as-needed basis during the next several years. Agenda items should include tracking the progress of the

voluntary goals for increasing the use of recycled newsprint in Virginia, recommending market incentives, evaluating technological advancements, and discussing legislative proposals at the state and federal levels.

In developing strategies for increasing old newspaper recycling/ utilization, the Task Force should consider the recommendations of the Center for Innovative Technology's recycling market proposal. The Center's proposal recommends that research be conducted into new uses for old newspapers and that a review of the operating permit application and approval processes be conducted. The Task Force should be considered as the primary advisory body to the Department and Administration on matters pertaining to newspaper recycling.

RECOMMENDATION 3. Existing markets for old newspapers should be expanded and new uses and markets for old newspapers should be developed.

Rationale

The means for substantially reducing the total amount of old newspapers being discarded in Virginia will not be realized solely through the increased use of recycled newsprint by newspaper publishers in the state. In fact, until additional recycled newsprint production capacity comes on-line, other users of old newspapers are likely to be the most accessible market for many local government recycling collection programs in Virginia.

Recommendation Number 3. should be carried out under the initiatives listed below:

- o The Commonwealth should survey all potential markets for old newspapers to determine their raw material volume and quality requirements. This information should become part of the Department of Waste Management's ongoing recycling planning assistance program for local governments.
- o The recycling market proposal developed by the Center for Innovative Technology should be fully evaluated as it pertains to utilization of old newspapers. That proposal recommends that old newspaper mulching and co-composting research projects be conducted in Virginia. The outcome of that research effort could have a significant impact on the markets for old newspapers. There are indications that the outcome of the Center's proposed research effort could be developed into solutions to recycling market problems that are national in scope.

The proposal's recommendations will affect the programs of several state agencies, including the Department of Economic Development, the Department of Waste Management, and the Department of Agriculture and Consumer Services. For this reason, a joint working group of representatives from these agencies should be established. This working group will be assisted by the Virginia Recycled Newsprint Advisory Task Force.

- o The Department of Waste Management should encourage state and local government agencies to establish and implement aggressive procurement programs for products that contain fibers recovered from old newspapers. The Department should provide technical procurement program planning assistance and listings of recycled product suppliers. The Department should develop a similar program for the private sector.
- o The Virginia Department of Economic Development should be encouraged to develop a program both for assisting established businesses in the Commonwealth and attracting new industries to the state that manufacture products from old newspapers. The Department should consider and include aspects of the Center for Innovative Technology's recycling market proposal in the development of its assistance program. Particular attention should be given to the proposal's recommendation which addresses the coordination of the operating permit application/approval process.
- o The Department of Waste Management should monitor the effectiveness of the current tax credits/exemptions for recycling equipment and the price preferences for recycled paper. The Department, in conjunction with the Department of Economic Development, should poll industry representatives for recommendations for additional incentives to assist the markets for old newspapers.

The recommendations developed by the Task Force take into consideration the potential need for the Commonwealth to secure additional funding to implement the initiatives. The recommendations offered here should not require substantial additional manpower on the part of the Commonwealth. Lastly, the recommendations were written to be consistent with the missions and legislated responsibilities of the affected agencies.

IV. CONCLUSION

The Department of Waste Management is confident that the recommendations developed by the Virginia Recycled Newsprint Advisory Task Force are the most prudent course of action for the Commonwealth at this time. Until recycled newsprint becomes more widely available, mandatory use requirements or minimum content specifications will be counterproductive.

The newspaper publishers in Virginia have voluntarily committed to increasing their purchase and use of recycled newsprint over the next five years. It should be noted that the newspapers across the Commonwealth have committed to a more ambitious 1995 target level than have publishers in other states. Such an expression of commitment deserves consideration.

In most localities in Virginia, the local paper is an established member of the community, a part of daily life. Although it enjoys relatively little competition, except from other media forms, unlike many other businesses, a local paper lacks the ability to pack-up and move to another location if need arises. Most areas will already have a local paper, and newcomers are seldom successful. In short, the newspaper publishers in Virginia are here to stay. Therefore, failure on the part of the industry to adhere to this voluntary commitment is not without serious consequence.

The Task Force has recommended that the Commonwealth enter into an agreement with the publishers and accept their voluntary pledge in good faith. By doing so, Virginia will be sending a clear message to other industries that the state has both an appreciation for the complexities of the free market system and a willingness to work with the private sector to resolve matters of mutual concern. The necessity for public and private sector cooperation has seldom been as essential as it will be in developing workable and efficient solutions to the looming solid waste management crisis.

Finally, the Commonwealth must become a leader by example. To make the entire newspaper recycling system work, the state will have to establish aggressive procurement programs for all of the products made from old newspapers. New and existing businesses which can utilize old newspapers as a raw material in their manufacturing processes should be encouraged to locate or expand their operations in Virginia. Research into new uses for old newspapers and other recyclable materials should be a high priority for programs at the state's educational institutions and should be funded at least in part by the private sector. Above all else, the Commonwealth must develop a comprehensive public educational program, if old newspaper recycling is to be successful.

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APPENDIX A

**Report And Recommendations
Of The
Virginia Press Association Recycling Task Force**

VIRGINIA PRESS ASSOCIATION
REPORT AND RECOMMENDATIONS OF
THE VIRGINIA PRESS ASSOCIATION
RECYCLING TASK FORCE

- I. Overview
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I. OVERVIEW

The Virginia Press Association (VPA) Board of Directors authorized the establishment of a Newsprint Recycling Task Force early in 1990 with the express purpose of educating, informing and encouraging its member newspapers on the benefits of newsprint recycling. In addition, this report will be submitted to the Advisory Task Force of the Department of Waste Management studying newspaper recycling as established by House Joint Resolution No. 150.

We recognize that our society is being forced to confront one rather unpleasant consequence of our affluent lifestyle. As existing landfills reach capacity and the prospect of opening new ones is debated, it is imperative that all of us find ways to reduce the solid waste stream. We support Virginia's goal of recycling at least 25% of Virginia's solid waste by 1995.

It is important that we understand that newspapers constitute about 6% of the solid waste stream. There is a public perception that newspapers constitute a far larger percentage of the total volume and that misunderstanding is due, in some measure, to the fact that newspapers are such a visible part of our daily life. Newspapers have the highest recycling rate of any printed medium and is the third most recycled product nationwide.

Recycling is alive and well - and has been nurtured by industry's need for high quality raw material. In 1989 of all the newsprint used in the United States, 38% was recycled, up from 35% in 1988. About 1.5 million tons were turned into newsprint again; 1.4 million tons into box board; more than a million tons shipped to other countries for recycling there; and another million tons or so were used for egg cartons, insulation, packing material, animal bedding, mulch and sanitary tissue.

It is a given fact that collecting old newspapers (ONP) is at an all-time high. In fact, new collection campaigns are so successful, they have temporarily created a surplus of used newsprint. This oversupply has driven the market price from \$25 to \$30 a ton in early 1989 down to \$0 - \$5 per ton by mid-1989, and continues at \$0 - \$5 per ton in 1990 for the Mid-Atlantic region. New recycling capacity coming on line by 1993 will bring the supply and demand of ONP more into balance.

Newspaper publishers across the nation, as well as in Virginia, are committed to using recycled newsprint. In 1989, of the 13.5 million short tons of newsprint consumed nationwide, 10.5% - about 1.4 million tons - were recycled. In Virginia of the 312,585 short tons consumed, 13.3% - about 42,000 tons - were recycled newsprint.

There are currently eight mills in the United States and one in Canada producing 1,850,000 tons of recycled newsprint a year. That currently represents about 14 percent of the total newsprint needed in the United States. Because the newspaper industry has been telling its major suppliers that it wants and will use more recycled newsprint, plans have already been made for new mill projects that will produce an additional 815,702 short tons of recycled newsprint this year, (Appendix C). North American mills are also considering other projects that would add another 686,500 tons beyond the current total.

It should be noted that the sums of money involved here are considerable: A newsprint mill costs about \$450 million to build. If a de-inking plant is added to an existing facility to handle old newspapers, the cost will increase an additional \$50 to 100 million.

As we move ahead to change from a substantial dependence on virgin newsprint to a substantial use of recycled newsprint, we need to do so with a balanced process driven by the economic forces of a free market. We should not rush to solve one problem - solid waste disposal - by creating another: the severe disruption of the newspaper and newsprint production industries.

Legislation in any form towards this problem will slow recycling progress rather than speed it up. It will make the market less efficient and impose bureaucratic oversight expenses that will make both newsprint and solid waste disposal more costly.

Regulations inhibit growth by creating a ceiling of sorts that tell producers exactly how much recycled newsprint will be required. But the free market can send signals that more recycled newsprint will be needed and invite competitors to produce as much as they can.

Historically, newsprint pricing is very sensitive to the basic laws of supply and demand. During periods of shortages, prices can escalate to the point where newsprint cost can severely impact newspaper earnings. During periods of soft demand, it is possible for users to benefit from negotiated purchases below listed prices.

Injecting quotas and mandatory requirements for using recycled newsprint will play havoc with such a sensitive market. In extreme circumstances, it could even adversely affect the kind and the size of some newspapers. That, of course, would be the most traumatic disruption of all. Realizing that, some state governments have begun to get involved in more productive ways.

Newspaper executives in New York, Pennsylvania, Kentucky, New Hampshire, Vermont, Massachusetts, and Maine began in mid-1989 to form task forces (similar to the one Virginia has established) with state and local government officials to assure the mills of their demand, to work out a continual supply of ONP and to offer the governments an assurance of continued growth in newspaper recycling. All of these states have reached voluntary agreements with their publishers.

In New York and Pennsylvania, for example, voluntary agreements were reached whereby publishers would attempt to increase their use of recycled fiber while the states would encourage the collection of used newspapers and the expansion of recycled newsprint manufacturing.

These agreements recognized that recycling is a complex issue involving significant economic, social and political factors. If recycled newsprint capacity and markets for old newspapers are to grow with minimum disruption and maximum efficiency, the process must be voluntary and dictated by the free market.

Willing customers, multiple suppliers, government coordination, realistic schedules - these are the elements of recycling that will support new and faster growth through the end of the century.

There is, too, a time-honored reality that is referred to sparingly, but which must be kept in mind. Controls on newsprint are characteristic of governments that are not fully free, and are inconsistent with a free press. Newspapers should not be placed in a competitive disadvantage by legislation, i.e. they should be treated the same under the law as all print competitors.

II. RECOMMENDATIONS

After studying the supply and cost of recycled newsprint, the problems and concerns of newsprint manufacturers, and the newsprint usage in Virginia, the Newsprint Recycling Task Force makes the following recommendations to the Board of Directors and the membership of VPA:

1. The Board of Directors adopt a resolution supporting the voluntary recycling of newspapers and increased purchases of newsprint with recycled content by VPA members.

VPA supports the development of specific, but voluntary guidelines for the use of newsprint containing recycled fiber, for the purpose of reducing Virginia's waste stream volume. Guidelines for future increases in recycled newsprint should not be used to undermine the viability of existing ONP users. Goals and guidelines should be linked to the availability of paper containing recycled fiber that is similar in quality to virgin fiber newsprint and sold at the same transaction price.

Additional newsprint with any percentage of recycled fiber helps solve the waste problem. The goal is not simply to reward the existing makers and users of recycled newsprint. So that as many mills as possible can participate in the recycling effort, the goal focus should be on maximizing the use of recycled newsprint regardless of the percentage of recycled fiber content. To require a minimum recycled fiber content before newsprint can be classified as recycled, or to count the aggregate recycled fiber consumption, would be counterproductive. Some existing virgin newsprint mills capable of adding deinking facilities could be discouraged from doing so if an arbitrary content percentage is set higher than what they could realistically achieve.

VPA recommends that the percentage of recycled newsprint versus total consumption used by Virginia publishers be 15% in 1992, 20% in 1993, 25% in 1994, and 30% by 1995.

The task force believes that the growth rate in supply of recyclable fiber and availability of newsprint containing recovered fiber after 1995 is too unpredictable, to set voluntary goals beyond this date.

2. It is important to note that use of any level of recycled fiber in Virginia consumed newsprint will not assure removal of ONP from Virginia's waste stream because other

regions of our country, with more pressing landfill problems may make it financially more attractive for newsprint mills to recycle their ONP. For this reason the VPA strongly recommends that the Commonwealth pursue a variety of alternatives to remove ONP from the waste stream. A partial list of alternate solutions that should be studied by the Commonwealth are:

Encourage Virginia Department of Transportation and Virginia municipalities to use mulch manufactured from ONP collected from within the Commonwealth. (In many respects this product is superior to that which is currently used as the product can be customized with desirable chemicals.)

Encourage the development of the use of Virginia's ports to export ONP to countries who have a real and pressing fiber shortage (i.e. few trees).

3 . Encourage VPA members to work with newsprint suppliers to develop programs for returning ONP to recycling mills and to set quality standards for recycled newsprint.

4. Encourage VPA members and their readers to participate in local recycling programs.

5. Encourage VPA members to work with local governments and industry experts to create collection programs that can spread fixed-costs through maximum use of collection vehicles and who can help avoid the peaks and valleys in any one market by developing multiple-product programs. VPA recommends that none of the newspaper publishers reduce the recycled fiber content currently being used.

6 . VPA conduct annual surveys of its members ' newsprint usage and maintain a clearinghouse for recycling information for its members.

7. The Board of Directors establish a permanent committee on newspaper recycling through which the VPA will cooperate with newsprint suppliers, state and local government, and its membership to encourage the collection and marketing of old newspapers, the production of recycled newsprint in sufficient quantities and at competitive prices, and the increased use of recycled newsprint in Virginia.

8. Encourage VPA member newspapers to do what they do best: Inform their readers about recycling in their news pages, in their editorials, in Newspaper in Education Programs and at community events.

III. NORTHERN AMERICAN NEWSPRINT

A. SUPPLY & DEMAND

Newsprint is a 13.5 million ton market in the United States and has been growing on a 2.2% per year trend line until recently. This means an average new requirement each year

of about 300,000 tons, or more than the output of one and a half new paper machines every year. U.S. consumption is split between daily newspapers who use 75% of total consumption and commercial printers and weekly newspapers who use the other 25%.

Newsprint supply comes from Canadian sources (55%) and U.S. sources (45%). Newsprint is Canada's second or third largest export product worth nearly \$6 billion U.S. dollars per year. There are over 40 mills in Canada and 23 in the United States making standard newsprint. In addition to supplying the United States and Canada, these mills export over 2.2 million tons of newsprint to countries around the world, chiefly from Canada and the U.S. West Coast.

Demand and supply figures for the last several years and forecasts through 1995 are given in the two tables below. The differences between total demand and supply represent changes in inventory in user hands.

North American Newsprint Demand
(000 Short Tons)

	U.S. Consump- tion	Canada Consump- tion	Offsh. No. America	Total Demand
1988	13,468	1,318	2,128	16,914
1989	13,465	1,255	2,419	17,134
1990E	13,625	1,344	2,250	17,219
1992F	14,300	1,400	2,350	18,050
1995F	15,200	1,490	2,420	19,110

North American Newsprint Supply
(000 Short Tons)

	Shipments		Imports to U.S. from Offshore	Total Supply
	From U.S. Mills to U.S.	From Canadian Mills to U.S. & Can.		
1988	5,957	10,714	302	16,973
1989	6,066	10,568	222	16,856
1990E	6,160	10,500	225	16,885
1992F	7,060	10,715	225	18,000
1995F	7,300	11,575	225	19,100

The industry capacity to supply all the projected demand for newsprint is not a problem and, in fact, there is sufficient capacity on line now in 1990 to meet the 1992 forecast. By 1992 or 1993 there will be sufficient capacity in place to meet the projected 1995 demand. It normally takes three years to find a site and build a mill, or two years to add a machine to an existing mill, so at any time the industry has a fairly solid fix on capacity three years ahead. What is changing dramatically, however, is the fiber base to be used for future

newsprint manufacture. In response to the pressure to recycle newspapers in order to reduce solid waste volumes, the newsprint industry is currently changing many mills to make use of old newspapers (ONP) instead of virgin wood pulp. The following is a review of the recycled newsprint industry and a forecast of capacity through 1995. 1988 is the base year for the look at recycled newsprint.

B. RECYCLED NEWSPRINT

In 1988 there were eight (of 23) mills in the U.S. and one (of 40) in Canada manufacturing recycled newsprint. The output of these mills was 1.9 million tons of recycled newsprint, presumably all sold in the U.S. or Canada, and accounting for 11% of total North American newsprint supply.

Solid waste pressures in various states and voluntary action by newspaper publishers in several others to stimulate a larger use of old newspapers in making newsprint has already caused, as of July 1, 1990, at least 12 projects in newsprint mills to be started to incorporate ONP deinking. Eight projects are in U.S. mills and four are in Eastern Canada. Two more have been announced in July and a good many more deinking projects are being developed.

The 12 projects already finished since 1988 or under construction will raise the capacity for recycled newsprint by 3.4 million tons by 1992. This will mean a total North American recycled newsprint capacity of 5.3 million tons by the end of 1992. With the pressure to create markets for ONP continuing, the industry will incorporate still more ONP deinking capacity to start up in the years after 1992. A forecast of what the recycled newsprint capacity might be by 1995 is difficult to make with any accuracy, but it will take only five or six more announcements of projects beyond the 12 underway to account for another 1.5 million tons of recycled capacity. (The two just announced in July at East Millinocket, Maine and Vancouver, BC will add 500,000 tons of recycled newsprint capacity of 1993.

The following is a view of recycled newsprint capacity through 1995. This view is nationwide and is not necessarily feasible in each state.

	<u>Recycled Newsprint Capacity</u> <u>(000 Short Tons)</u>		
	<u>1988 (actual)</u>	<u>1992E</u>	<u>1995F</u>
U.S.	1,581	3,750	5,000
Canada	<u>350</u>	<u>1,580</u>	<u>2,500</u>
Total	1,931	5,330	7,500
U.S. Consumption	13,468	14,300	15,200
% Recycled Newsprint Of Total Consumption	14%	37%	49%

It is emphasized that to make the 37% of newsprint consumed in the U.S. be recycled newsprint by 1992, no further action need be taken except to complete those projects for ONP deinking already underway.

For the 49% to be achieved in 1995 another 2.2 million tons of capacity is needed, of which 500,000 has already been announced.

It is assumed that all the recycled newsprint capacity in place at any time will be utilized at essentially a 100% operating rate in order to respond to the recycling demand.

C. OLD NEWSPAPER SUPPLY AND DEMAND

ONP is used by several segments of the paper industry. The actual demand for U.S. ONP in 1988 was as shown.

	<u>ONP</u> <u>(000 Short Tons)</u>	
	<u>1988</u>	<u>1989</u>
Used for Newsprint	1,420	1,500
Used for Paperboard, Tissue, and Construction Papers	1,807	1,800
Exported from the U.S.	1,039	1,285
Other Uses (molded pulp, insulation animal bedding)	500	530
	<u>4,765</u>	<u>5,115</u>
U.S. Consumption	13,468	13,605
ONP Recovery %	35%	37.6%

Source: American Paper Institute statistics

Demand for ONP will grow because of the increasing use for recycled newsprint and for export which has been growing at double-digit rates for the last five years or more. (Much of the exported ONP goes into newsprint in places like Korea, Mexico, and Taiwan.)

ONP demand for 1992 and 1995 is forecast below. The 1992 figure is solidly based on capacity increases of recycled newsprint already in place or under construction.

North American ONP Demand (000) Short Tons)

	<u>1988</u>	<u>1992F</u>	<u>1995F</u>
For Newsprint	1,600	2,955	4,300
For Paperboard, Tissue	1,900	2,000	2,200
For Export	1,039	1,450	1,930
Other Uses	<u>500</u>	<u>500</u>	<u>500</u>
Total	5,039	6,905	8,930
Total No. American Consumption	14,786	15,700	16,690
Implied No. American ONP Recovery Rate	34%	44%	54%

Because Canadian mills are increasing their use of ONP, and will generally pull as much ONP from Canadian sources before importing ONP from the U.S., it is necessary to view the recovery of ONP on a North American basis rather than a strictly U.S. view.

The recovery rate for ONP will need to rise from the 34% rate in 1988 to 44% by 1992 and 54% by 1995 to meet the needs of the capacity already committed to new recycling facilities. These are average rates for all of U.S. and Canada. There will be many places where the local or regional recovery rate for ONP will exceed 60-65% if averages of 44% and 54% are to be achieved. (Around the existing 100% recycled mills in the U.S., the recovery rates for ONP are believed to be in the high 50's per cent.)

The industry does not actually know how high the recovery rate can be driven, but 54% by 1995 is achievable if examples such as Japan, Germany and Holland are considered. Certainly the current recycling effort is likely to force our ONP for reuse and a great many more tons will be diverted from solid waste.

Ten to fifteen percent of old newspapers disappears into permanent use or destruction (e.g. household uses) and will never be recovered. Japan, a country 15 times as dense as the U.S. in population, has been able to get close to a 70% recovery rate after many years of striving and driven by an extreme shortage of wood fiber. This is a strong indication that the U.S. will have difficulty matching, much less exceeding, the Japanese ONP recovery performance.

It must be noted that the other uses for ONP aside from newsprint are as important to those businesses as recycled newsprint users. In addition, it is essential that ONP be used by others so that there is always a need for fresh virgin fibers to be added to the fiber pool used for newsprint. Virginia reports more cord growth per year than is consumed by virgin fiber users. If too high a percentage of ONP always goes back to newsprint, it would lead to worn-out fibers recycled too many times. The industry does not know where this point of reuse percent is exactly, but in Japan their high ONP recovery rate which goes mainly back to newsprint has been causing strength problems from excessive recycling.

D. REGIONAL NEWSPRINT & ONP SUPPLY AND DEMAND

Virginia consumes about 312,585 short tons of newsprint per year. Another 390,000 tons are consumed in Maryland and the District of Columbia. It is difficult to sort out Virginia alone because of the enormous impact of the Washington Post in Northern Virginia; however, the 312,585 tons represents a recent Virginia newspaper survey.

API reports about 55,000 tons of ONP are used by Virginia enterprises each year for all uses. This is mainly boxboard/paperboard use since there are no recycled newsprint mills in Virginia. Recent export tonnage of ONP was 9,000 out of Norfolk plus 18,000 out of Baltimore in 1989, some of which may have come out of Virginia. We also record that some 40,000 tons of ONP is recovered by Southeast Recycling out of the Washington/Richmond area for use at the Georgia mill. This activity precedes the current recycling efforts.

These figures of ONP collection are the situation as of 1989 and do not reflect the additions of recycled newsprint capacity by Bowater at Calhoun, Tennessee, various Canadian projects, and Abitibi at Augusta, Georgia and Claiborne, Alabama, all of which will increase the East and West demand for ONP starting in late 1990 and 1991/1992.

Regionally recycled newsprint capacity will change as follows based on announcements of projects now underway.

	<u>Recycled Newsprint Capacity</u>		
	<u>(000 Short Tons)</u>		
	<u>1988</u>	<u>1992E</u>	<u>1995F</u>
Northeast & Mid-Atlantic	220	230	455
South	<u>220</u>	<u>1,810</u>	<u>2,300</u>
Total-East Coast	440	2,040	2,755
ONP Pulp Tons Needed		506	1,150
1,600			
For U.S. Expansions			

By 1992 the East Coast area will need to pull 1.1 million tons of ONP for use in recycled newsprint and 1.6 million by 1995. This is up from 506,000 tons in 1988. Most of this expansion will come in the South (Georgia, Alabama, Texas, Tennessee) and these amounts do not include ONP needed by Canadian mills or for export and boxboard uses. Virginia is likely to feel the market demand to recover considerably more ONP by 1995 than it has been doing to date.

APPENDIX A
VIRGINIA USERS OR RECEIVERS OF ONP

PDC	BUSINESS NAME	ADDRESS	CITY	PHONE	ONP
01	Mountain Empire Recy	Rt 3, Box 225	Big Stone Gap	703-523-4524	Y
03	Bristol Recycling Ct	1115 Fifth Street	Bristol	615-764-5411	Y
04	Cycle Systems	300 N. Franklin St	Christiansburg	703-382-3900	Y
05	Chesapeake Corp	2160 Hollins Road	Roanoke	703-563-2032	Y
05	Waste Diverting Tech	1124 River Ave. SE	Roanoke	703-981-0011	Y
05	Cycle Systems	2580 Broadway	Roanoke	703-981-1211	Y
06	Bryant Salvage	RT 642	Fishersville	703-943-0489	Y
06	Dave's Recycling	1181 South High St	Harrisonburg	703-434-0836	Y
06	Valley Paper Recy	Rt 33	Hinton	703-433-0411	Y
06	Earth Keepers	950 Parkwood Dr	Harrisonburg	703-433-2771	Y
07	Zuckerman Co	Rt 11N	Winchester	703-667-6000	Y
07	Recycling Unlimited	P.O. Box 727	Woodstock	800-766-8892	Y
07	Zuckerman Co	Rt 11N, P.O. Box 3275	Winchester	703-667-6000	Y
07	Southern Scrap	Rt 11N	Winchester	703-662-0265	Y
08	NF & T Enterprises	221 N 21st St	Purcellville	703-478-1059	Y
08	Metro Recyclers	2801 Dorr Avenue	Fairfax	703-207-9104	Y
08	Environmental Recy	621 South Pickett St	Alexandria	703-370-3325	Y
08	Tyson's Corner Recy	1524 Spring Hill	McLean	703-790-8891	Y
09	Culpeper Recycling	1007 Yancy Street	Culpeper	703-825-8664	Y
09	Cellin Manufacturing	P.O. Box 38	Elkwood	800-825-5565	Y
10	Trash Rehash	705 Rockcreek Road	Charlottesville	804-977-7397	Y
11	Bryant Salvage	Wright Shop Road	Madison Heights	804-845-1703	Y
11	Cycle Systems	Lawyers Road	Lynchburg	804-237-6666	Y
15	Sonoco Products	1850 Commerce Road	Richmond	804-233-5411	Y
15	Fort Lee Recy	Bldg 7101, Fort Lee	Petersburg	804-734-5539	Y
15	Ukrops Supermarket	Crossroads Shoppers	Richmond	804-379-1444	Y
15	Ukrops Supermarket	Westpark Shopping Ct	Richmond	804-965-0530	Y
15	Ukrops Supermarket	Chesterfield Meadows	Chester	804-976-1120	Y
15	Southeast Recycling	1402 Belleville St	Richmond	804-359-1080	Y
15	Commodity Recycling	2700 Jeff-Davis	Richmond	804-231-0739	Y
15	Paper Chase Recycling	415 S. Pine St.	Richmond	804-644-4421	Y
15	Ukrops Supermarket	Brookwood Shopping	Richmond		Y
16	Piedmont Recycling	10 Clark Street	Fredericksburg	703-373-1002	Y
17	J.C. Wildy Scrap Met	Rt 360	Heathsville	804-580-2764	Y
20	Atlantic Paper	1832 Church St	Norfolk	804-625-6211	Y
20	Butler Paper Co	324 Newport St	Suffolk	804-539-2351	Y
20	Tidewater Fibre Co	1958 Diamond Hill Rd	Chesapeake	804-543-5766	Y
21	Hampton Roads Recy	1 Newsome Place	Hampton	804-723-6068	Y
21	Williamsburg Recy	209 Ewell Road	Williamsburg	804-564-7656	Y

**APPENDIX B
CURRENT RECYCLED-CONTENT NEWSPRINT CAPACITY**

(Existing Mills)

COUNTRY	COMPANY	ANNUAL NEWSPRINT CAPACITY (000 SHORT TONS)	RECYCLED CONTENT	TYPE OF SECONDARY FIBER	APPROXIMATE WASTEPAPER DEMAND (000'S TONS/YEAR) ¹
CANADA	Quebec & Ontario Paper Co. Ltd. - Thorold, Ontario	340	55%	ONP & Magazine	215
UNITED STATES	FSC Paper Corp. - Alsip, Illinois	132	100%	ONP	150
	Garden State Paper Co Inc - Garfield, New Jersey	225	100%	ONP	260
	Golden State Newsprint Co Inc - Pomona, California	135	100%	ONP	155
	Manistique Paper Inc - Manistique, Michigan	60	100%	Magazine	70
	Smurfit Newsprint Corp - Newberg, Oregon	385	50%	ONP ²	230
	- Oregon City, Oregon	237	50%	ONP & Magazine	145
	Southeast Paper Mfg. Co - Dublin, Georgia	450 ³	100%	ONP	520
	Stone Container Corp - Snowflake, Arizona	290	50%	ONP & Magazine	320

1 - based on % recycled-content and yield

2 - new equipment will allow the use of magazine stock in 1990

3 - includes new machine which started up in September 1989

Source: CPPA July 1990

**APPENDIX C
ANNOUNCED RECYCLED-CONTENT NEWSPRINT CAPACITY**

(Deinking/Recycling Facilities for Newsprint Production)

<u>COUNTRY</u>	<u>COMPANY</u>	<u>START-UP DATE</u>	<u>RECYCLED CONTENT</u>	<u>TYPE OF SECONDARY FIBER</u>	<u>ESTIMATED WASTEPAPER DEMAND (000'S TONS/ YEAR)</u>	<u>COMMENTS</u>
CANADA	Atlantic Packaging Ltd - Whitby, Ontario	Late 1990	100%	ONP	175	New 150,000 stpy recycled nspt. mill
	Cdn. Pacific Forest Products Ltd - Thunder Bay, Ontario - Gatineau, Quebec	Mid 1991	Variable	Approximately 70% ONP and 30% Magazine	370	New deinking lines
	Daishowa Forest Products Ltd. - Quebec City, Quebec	1st Q 1992	Variable	ONP & Magazine	130 plus	New deinking line.
	Kruger Inc. (2 mills)	May 1991	Variable	-	70	New deinking mill will supply deinked pulp to mills in Bromptonville, Que. & Trois-Rivieres Quebec
	Stone-Consolidated Inc	End 1991	-	-	-	New deinking line
	Abitibi-Price Inc	N/A	N/A	N/A	N/A	New deinking unit at existing mill. Location to be announced in 4th Q of 1990

APPENDIX C (con't)

ANNOUNCED RECYCLED-CONTENT NEWSPRINT CAPACITY

(Deinking/Recycling Facilities for Newsprint Production)

COUNTRY	COMPANY	START-UP DATE	RECYCLED CONTENT	TYPE OF SECONDARY FIBER	ESTIMATED WASTEPAPER DEMAND (000'S TONS/YEAR)	COMMENTS
UNITED STATES	Alabama River Newsprint Co	End 1991	Up to 40%	Approx. 70% ONP and 30% magazine	140	New deinking line will be added to new 220,000 mtpy newsprint mill scheduled to startup in 3rd Q 1990
	Augusta Newsprint Co - Augusta, Georgia	Sept. 1990	Variable; deinking line will supply 25% of mill's fiber needs	ONP & Magazine	110 plus	New deinking line. Current mill capacity is 400,000 tons/year.
	Bowater Inc - Calhoun, Tennessee	Dec. 1991	Variable	ONP & Magazine	140	New deinking line
	Inland Empire Paper Co - Milwood, Washington	Late 1991	40% for about half of production (66,000 mtpy)	ONP	45	New deinking line.

**APPENDIX C (con't)
ANNOUNCED RECYCLED-CONTENT NEWSPRINT CAPACITY**

(Deinking/Recycling Facilities for Newsprint Production)

<u>COUNTRY</u>	<u>COMPANY</u>	<u>START-UP DATE</u>	<u>RECYCLED CONTENT</u>	<u>TYPE OF SECONDARY FIBER</u>	<u>ESTIMATED WASTEPAPER DEMAND (000'S TONS/ YEAR)</u>	<u>COMMENTS</u>
UNITED STATES	Joint venture between a Jefferson Smurfit Group subsidiary and a group of leading newspaper pub- lishers in the Northeast USA - Northeast USA	1994 plus (on hold)	100%	ONP & Magazine	300 plus	New 250,000 tons/year nspt. mac- hine and deinking line.
	North Pacific Paper - Longview, Washington	April 1991	Variable; de- inking line will supply 25% of mill's fiber needs	ONP	225	New 250,000 tons/year nspt. machine and deinking line.
	Champion International Corp - Sheldon, Texas	Late 1992	Variable; will supply 20% of mill's fiber needs.	ONP & Magazine	170	New deinking unit.

**APPENDIX D
FUTURE PROJECTED RECYCLED-CONTENT NEWSPRINT CAPACITY**

(Deinking/Recycling Facilities Announced as Under Consideration)

<u>COUNTRY</u>	<u>COMPANY</u>	<u>START-UP DATE</u>	<u>RECYCLED CONTENT</u>	<u>TYPE OF SECONDARY FIBER</u>	<u>ESTIMATED WASTEPAPER DEMAND (000'S TONS/ YEAR</u>	<u>COMMENTS</u>
CANADA	Alberta Newsprint Co - Whitecourt, Alberta	Project Under Study			120	New deinking line will be added to new 220,000 mtpy nsprt. mill scheduled to start up in August 1990.
	Boise Cascade Corp - Kenora, Ontario	Project Under Study				New deinking line
	Donohue, Inc.	Project Under Study			-	New deinking line
	Newstech Recycling Inc (Subsidiary of Balaclava Ent.) - Coquitlam, B.C. Early 1991	Late 1990	-	ONP	155	New "green-field" deinking plant; awaiting Provincial approval; will supply MacMillan Bloedel Ltd & Fletcher Challenge Canada.

APPENDIX D (con't)
FUTURE PROJECTED RECYCLED-CONTENT NEWSPRINT CAPACITY

(Deinking/Recycling Facilities Announced as Under Consideration)

<u>COUNTRY</u>	<u>COMPANY</u>	<u>START-UP DATE</u>	<u>RECYCLED CONTENT</u>	<u>TYPE OF SECONDARY FIBER</u>	<u>ESTIMATED WASTEPAPER DEMAND (000'S TONS/ YEAR)</u>	<u>COMMENTS</u>
UNITED STATES	Bear Island - Ashland, Virginia	Project Under Study		-	-	New deinking line
	Boise Cascade Corp - West Tacoma, Washington	1992	40%	-	90	New deinking line for 200,000 TPY mill.
	Great Northern Nekoosa Corp - East Millinocket, Maine	1992	Variable	ONP & Magazine	120	New deinking line announced July 1990
	Westbrook Wood Products - Klamath Falls, Quebec	No Date	50%	-	120	New 220,000 tpy mill Project still tentative.

APPENDIX E
ESTIMATED WASTEPAPER DEMAND FOR NEWSPRINT PRODUCTION IN NORTHERN AMERICA
(Excludes projects under study)

(000 SHORT TONS)

	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>CHANGE</u> <u>1989-1992</u>
CANADA	215	230	615	1,070	855
UNITED STATES	<u>1,500</u>	<u>1,750</u>	<u>1,860</u>	<u>2,300</u>	<u>800</u>
NORTH AMERICA	1,715	1,980	2,475	3,370	1,655

July 5, 1990

V. VPA Recycling Task Force Members

Joseph Cantrell	Daily Press/The Times-Herald
Charles Rowe	The Free Lance-Star
Richard Barry III	Landmark Communications
T. George Washington	The News & Daily Advance
Lawson Grant	Danville Register & Bee
Bo Jones	The Washington Post
Harry Nanney	The South Hill Enterprise
Tom Armstrong	Bear Island Paper Company
Dr. Bob Moran	Bowater Paper Company
John Josephs	Garden State Paper Company
George Elder	Southeast Paper Company
Jim Wagner	Landmark Communications
Rick Swift	Bear Island Paper Company
Ginger Stanley	Virginia Press Association

VI. Sources

"A Look At Newsprint Recycling: Today and Tomorrow" by Frank Bennack, Jr.

An ANPA recycling report prepared February 1990

House Joint Resolution Number 150

GENERAL ASSEMBLY OF VIRGINIA--1990 SESSION
HOUSE JOINT RESOLUTION NO. 150

Requesting the Department of Waste Management to study newspaper recycling.

Agreed to by the House of Delegates, February 2, 1990

Agreed to by the Senate, March 7, 1990

WHEREAS, landfill space is becoming increasingly scarce and expensive; and
WHEREAS, old newspapers comprise roughly 6 percent of a local government's solid waste discards; and

WHEREAS, old newspapers are easily segregated from the rest of household solid waste and are highly recyclable; and

WHEREAS, recycled newsprint accounts for 11 percent of the total newsprint production in North America; and

WHEREAS, the construction of a recycled newsprint manufacturing facility requires an immense investment of capital; and

WHEREAS, the Department of Waste Management reports that buyers or markets do not exist for all old newspapers that can be collected in recycling programs; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Department of Waste Management is requested to study the means of increasing the production and use of recycled newsprint. The Department shall, among other things, (i) assess the availability of recycled newsprint to the newspaper industry in the Commonwealth, (ii) determine what actions by the Commonwealth, including tax incentives and expedited regulatory approval, could increase the availability of recycled newsprint, and (iii) confer with representatives of the newspaper industry to establish guidelines for use of recycled newsprint in line with projected availability.

The Department shall convene an advisory task force composed of representatives of newspapers published in the Commonwealth, the recycled newsprint industry, and other interested parties.

The Department shall complete its work in time to submit 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 the processing of legislative documents.

APPENDIX C

**Virginia Recycled Newsprint Advisory Task Force
Membership List**

Ex-Officio Members:

Delegate Edward R. Harris, Jr.
Lynchburg, Virginia

Ms. Cynthia V. Bailey
Virginia Department of Waste Management
Richmond, Virginia

Regular Members:

Mr. Michael Benedetto
Tidewater Fibre Corporation
Chesapeake, Virginia

Mr. Jim Nagy
Chesapeake Company
Richmond, Virginia

Mr. George Elder
Southeast Paper
Marietta, Georgia

Mr. Charles S. Rowe
The Freelance Star
Fredricksburg, Virginia

Mr. Robert Ellis
Bear Island Paper Company, L.P.
Ashland, Virginia

Ms. Kristine T. Smith
Sierra Club
Richmond, Virginia

Mr. John Josephs
Garden State Paper Company
Richmond, Virginia

Ms. Ginger Stanley
Virginia Press Association
Richmond, Virginia

Ms. Carol Melamed
The Washington Post
Washington, D.C.

Mr. James D. Wagner
Landmark Communications, Inc.
Norfolk, Virginia

Mr. Steve Meyer
Cellin Manufacturing, Inc.
Elkwood, Virginia

Ms. Brenda H. Wynn
Virginia Department of Economic
Development
Richmond, Virginia

Staff:

Mr. Michael P. Murphy
Virginia Department Of Waste Management
Richmond, Virginia

Virginia Press Association Resolution

**VIRGINIA PRESS ASSOCIATION
RESOLUTION
NEWSPAPER RECYCLING**

Agreed to by the Board of Directors, November 3, 1990, Blacksburg, Virginia

Whereas the Virginia Press Association considers the recycling of newsprint and the use of recycled newsprint as critical efforts in easing the growing problem of solid waste management;

And, whereas the Association has studied in depth the supply and cost of recycled newsprint, the problems and concerns of newsprint manufacturers, and newsprint usage in Virginia;

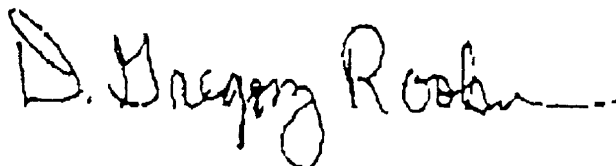
And, whereas the Association wishes to take a leadership role in encouraging recycling efforts among its members and the citizens of the Commonwealth.

Be it therefore resolved:

That the Board of Directors of the Virginia Press Association supports the voluntary recycling of newspapers and increased purchases of newsprint with recycled content by Association members.

That the Board of Directors of the Virginia Press Association support the development of specific, but voluntary guidelines for the use of newsprint containing recycled fiber, for the purpose of reducing Virginia's waste stream volume. Guidelines for future increases in recycled newsprint should not be used to undermine the viability of existing old newspaper users. Goals and guidelines should be linked to the availability of paper containing recycled fiber that is similar in quality to virgin fiber and sold at the same transaction price.

And that the Board of Directors of the Virginia Press Association supports a strategy whereby the percentage of recycled newsprint versus total consumption used by Virginia publishers be 15 percent in 1992, 20 percent in 1993, 25 percent in 1994, and 30 percent by 1995.



D. Gregory Rooker
VPA President

APPENDIX E

Annual Newsprint Survey Form

The Virginia Recycled Newsprint Advisory Task Force has recommended goals for use of newsprint with recycled content, beginning with a goal of 15 percent for calendar year 1992. For informational purposes, however, the Virginia press Association is collecting the following data for calendar year 1991.

1. The undersigned company and/or its wholly owned subsidiaries (if any) purchased in 1991 for consumption on press units located within the Commonwealth of Virginia _____ short tons of standard newsprint.
2. Based on information provided by the company's newsprint suppliers:
 - A. _____ short tons of these purchases, or _____%, contained some recycled fiber.
 - B. The recycled fiber content varied from _____% to _____%.
 - C. The weighted average recycled fiber content of the recycled paper (item 2A, above) is _____%.
3. If the answer to item 2A is under 15%, was additional recycled newsprint available to the company on the same terms and conditions as virgin newsprint?

_____ Yes _____ No

If No, please indicate the typical differences:

_____ price, _____ quality, _____ other terms.

The undersigned certifies that he/she is a company officer and to the best of his/her knowledge the information contained in this letter is true and correct.

Name

Newspaper or Company

Title

Signature

Date