S. HRG. 107–1006

RECYCLING: FEDERAL PROCUREMENT AND BEVERAGE CONTAINER RECYCLING PROGRAMS

HEARING

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

ON

JULY 11, 2002

Printed for the use of the Committee on Environment and Public Works

U.S. GOVERNMENT PRINTING OFFICE

83–716 PDF WASHINGTON : 2004

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2250 Mail: Stop SSOP, Washington, DC 20402–0001

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED SEVENTH CONGRESS
SECOND SESSION

JAMES M. JEFFORDS, Vermont, *Chairman*

MAX BAUCUS, Montana	BOB SMITH, New Hampshire
HARRY REID, Nevada	JOHN W. WARNER, Virginia
BOB GRAHAM, Florida	JAMES M. INHOFE, Oklahoma
JOSEPH I. LIEBERMAN, Connecticut	CHRISTOPHER S. BOND, Missouri
BARBARA BOXER, California	GEORGE V. VOINOVICH, Ohio
RON WYDEN, Oregon	MICHAEL D. CRAPO, Idaho
THOMAS R. CARPER, Delaware	LINCOLN CHAFEE, Rhode Island
HILLARY RODHAM CLINTON, New York	ARLEN SPECTER, Pennsylvania
JON S. CORZINE, New Jersey	PETE V. DOMENICI, New Mexico

KEN CONNOLLY, *Majority Staff Director*
DAVE CONOVER, *Minority Staff Director*

C O N T E N T S

RECYCLING: FEDERAL PROCUREMENT AND BEVERAGE CONTAINER RECYCLING PROGRAMS

THURSDAY, JULY 11, 2002

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The committee met, pursuant to notice, at 9:36 a.m. in room 406, Senate Dirksen Building, Hon. James M. Jeffords [chairman of the committee] presiding.

Present: Senators Jeffords and Carper.

OPENING STATEMENT OF HON. JAMES M. JEFFORDS, U.S. SENATOR FROM THE STATE OF VERMONT

Senator JEFFORDS. The hearing will come to order.

Good morning. I'd like to thank our witnesses for being here today. We have a lot to discuss, and I am eager to hear your comments. I'm excited about today's hearing.

The issue of recycling could not be more timely. In the last year, our security and resource concerns have been highlighted more than ever, lest we not forget that President Roosevelt's recycling campaign helped dramatically in World War II. Today the war is very different. The energy consequences are even more dramatic and important for us to consider.

I was alarmed by several statistics in the Container Recycling Institution's new study on aluminum. Let me share one of them with you. In 2001, 100 billion aluminum cans were sold, 100 billion aluminum cans were sold. More than half, over 50 billion, were wasted, which means landfills, they were littered or incinerated. If these 50 billion cans had been recycled, they would have saved the energy equivalent of 16 million barrels of crude oil. That's enough energy to generate electricity for almost 3 million U.S. homes for a year.

And the trend is worsening. The 2001 aluminum recycling rate was the lowest in 15 years. These statistics are astounding. The waste is disturbing. Our disposal practices have got to change.

The Federal Government must become a better role model, or industry must begin taking steps voluntarily, or Congress must pass recycling legislation, or all the above. In our search for the right answer, our balance of right answers, we will focus on two areas of recycling today. First, we will look at whether the Federal Government, which spent more than $230 billion in 2001 on goods and product, is maximizing its purchases of recycled content products.

In June of 2001, the General Accounting Office released a study that concerned me. One of their conclusions was that the many procuring officials and other Federal purchasers either do not know about or choose not to implement the requirements for establishing recycled content procurement programs. If the Federal Government is not recycling, how can we expect the rest of the country to do so? If the Federal Government is not creating market demand, how can we expect our businesses to continue their innovation?

The second issue I would like to talk about today is the beverage container recycling. For the last several Congresses, I have introduced a national bottle deposit bill. Vermont has been a leader in the area of beverage container recycling. The first bottle bill was passed in Vermont in 1953, and now 11 States have bottle bill laws. Just to put a little family history in, my father was on the supreme court in Vermont in 1953. He wrote the opinion saying, yes, the Government had the right to do that. So this is why I get so fired up over these things.

It has been over two decades since the Senate has evaluated the merits of deposit legislation to encourage greater beverage container recycling. I hope that today's hearing galvanizes the beverage industry to work cooperatively with other stakeholders to accept deposit systems or develop other solutions to the beverage container waste problem.

Every Congress, we hold hearings on the flow of trash through our States. It is a difficult issue that elicits strong reaction. One of the best ways to temper these fights is to ensure that there is less trash on the road in the first place. It is time that we all work together to restore the public's faith and therefore enthusiasm in recycling.

I look forward to working with all of you, and again, we thank the witnesses for being here today. We shall proceed.

STATEMENT OF DEBRA YAP, DIRECTOR, ENVIRONMENTAL STRATEGY AND SAFETY DIVISION, OFFICE OF BUSINESS AND OPERATIONS, PUBLIC BUILDING SERVICE, GENERAL SERVICES ADMINISTRATION; ACCOMPANIED BY MATTHEW URNEZIS, DIRECTOR, PROCUREMENT DIVISION

Ms. YAP. Thank you, Mr. Chairman, and members of the committee. I am Debra Yap, Director of the Environmental Strategy and Safety Division in the General Services Administration's Public Buildings Service.

I appreciate the opportunity to discuss what we are doing to ensure the Federal procurement of recycled content products and what can be done to improve these efforts. Section 6002 of the Research Conservation and Recovery Act established the Federal buy-recycled program. Executive Order 13101, "Greening The Government through Waste Prevention, Recycling and Federal Acquisition" strengthens the Federal Government's commitment to the acquisition of recycled content products.

The Environmental Protection Agency designates products with recycled content for Federal agency affirmative purchase. EPA identifies the products in comprehensive procurement guidelines, CPG, and provides recommendations for purchasing the products in the Recovered Materials Advisory Notice, or RMAN. Hereon, I will

refer to products that meet the RMAN recommendations as CPG compliant.

Each year, the top six agencies in terms of Federal procurement expenditures are required to report on their CPG purchases to the Office of the Federal Environmental Executive and the Office of Federal Procurement Policy. The Department of Defense, Department of Energy, National Aeronautics and Space Administration, Department of Veterans Affairs, Department of Transportation, and the General Services Administration account for more than 85 percent of total Federal expenditures. March 2002 report on implementation in fiscal year 1998 through 1999 indicates that of the $774 million spent on EPA-designated products, $492 million, or 64 percent, was spent on CPG compliant products.

Environmental stewardship is a responsibility of each Federal agency. The General Services Administration takes this role seriously. I would like to tell you how GSA is leveraging our unique mission to promote the Federal procurement of recycled content products. While I will discuss the efforts of GSA's Public Building Service, Federal Supply Service, and the Office of Governmentwide Policy separately, our efforts are a coordinated response to promote Federal procurement of recycled content products.

In the Public Building Service, PBS delivers superior workplaces to the Federal worker and at the same time, superior value to the American taxpayer. As the largest commercial style real estate organization in the Nation, PBS provides work space for a million Federal employees nationwide in more than 100 Federal organizations. We control approximately 40 percent of the Federal Government's office space. Leveraging our role as the Federal Government's landlord, PBS integrated a provision into its leasing agreements, property management contracts, PBS design standards and design selection criteria for CPG compliant products.

The Federal Supply Service (FSS) leverages the purchasing power of the Federal Government to provide Federal agencies with best value in commercial products and services. Through the supply system, FSS provides customers with access to more than 4 million professional services and commercial products. The business of FSS is entirely dependent on customer revenues. Because its services are non-mandatory, FSS must strive to maintain customer loyalty.

To assist customer agencies in their efforts to purchase recycled content products, FSS has developed a number of useful tools. The Environmental Products and Services Guide, which is also available on line, identifies CPG compliant products using a CPG icon. GSA developed this icon to make it easier, faster and less costly for customers agencies to identify CPG compliant products. This guide also indicates the percentage of recycled content in the product.

GSA's customer supply catalog identifies attributes which also includes the specific percentage of recycled content. The FSS web site also contains a wealth of environmental information, including laws, regulations, executive orders and links to other agency sites. A user using the site can view items, click on specific items, including CPG compliant items, and get connected to GSA Advantage, the online ordering system, or the Schedules E–Library. Using GSA

Advantage, the user can specifically search for CPG compliant products by looking for the CPG icon.

Working together, FSS, the GSA Environmental Executive and the Office of Acquisition in GSA's Office of Governmentwide Policy, developed a clause change that require new and renewing schedule holders to identify CPG compliant products at proposal submission. This rulemaking is nearly final publication in the Federal Register at this time. Once implemented, this will greatly facilitate a search for CPG compliant products.

Finally, FSS has been instrumental in the yearly report to OFEE and OFPP by reporting expenditures for other agencies that order certain products through FSS, most notably, CPG compliant copier paper.

In GSA's Office of Governmentwide Policy, they are responsible for carrying out the policy and regulatory functions assigned to GSA by Congress and exercises GSA's authority as one of the central management agencies of the Federal Government. Together with NASA, DOD, and the Civilian Agency Acquisition Council (CAAC), the Office of Acquisition Policy has developed regulatory guidance in the FAR that specifically addresses requirements for and purchasing of recycled content products from the earliest stages of requirements analysis, market research, acquisition planning, through source selection and contract administration.

This Office also plays another important role in promoting Federal procurement of recycled content products. GSA, under OFPP direction, manages the Federal Procurement Data System (FPDS). FPDS captures contract award information for the entire Federal Government. In October 2001, a committee chaired by GSA developed an OFPP approved new data element capturing information on CPG compliant contracts. A reporting subgroup of the White House Task Force on Waste Prevention and Recycling has been working to refine the new data element with the purpose of easing Resource Conservation and Recovery Act reporting by agencies and to provide a basis for measuring CPG compliant purchasing.

Opportunities for improvement. Reporting and measuring continue to challenge this program governmentwide. While we applaud the efforts to refine the FPDS data element, dollar or volume amounts of individual CPG items within an individual contract cannot be captured. Also, it is important to understand that purchases under $25,000 are not required to be reported under FPDS. The reporting subgroup of the White Task Force on Recycling and Waste Prevention continues to address these challenges and make recommendations for improvement. The Task Force and GSA will continue to work with agencies to stress the importance of the agencies' commitment to environmental stewardship through acquisition planning, contract development and aggressive, affirmative procurement programs.

While research is being conducted to track credit card purchases, we do not currently have the ability to do so. Presenting a further challenge is the difficulty for card holders to identify CPG compliant products at retail establishments. We also believe that a periodic review of the EPA list of CPG items would help to ensure that suppliers of such products are available and responsive and that new entrants into the market are included on supplier lists.

We do understand that EPA is reviewing their supplier list and we recommend that this be done periodically.

In closing the GSA Environmental Executive continues to work closely with the Federal Environmental Executive, John Howard, and the White House Task Force on Waste Prevention and Recycling, to ensure we are maximizing our opportunities to promote the use of recycled content products.

Mr. Chairman and members of the committee, thank you again for this opportunity to testify. I am happy to answer any questions that you may have.

Senator JEFFORDS. Thank you very much for a very fine statement.

Procurement officials play an important role in ensuring that their agencies purchase recycled content product. Yet many of these officials seem unaware of this requirement.

What do you do to ensure that GSA, a key procurement agency for the Government, purchases recycled content products as often as possible?

Ms. YAP. Thank you for that question.

As part of GSA's Affirmative Procurement Program, we have embarked on a training program for our procurement officials and credit card holders. We have trained over 1,000 people so far, informing them of the requirements to purchase recycled content products, and leading them to suppliers of the CPG complaint products.

Senator JEFFORDS. GSA currently captures the data on purchases from its supply centers. What about capturing data on recycled content purchases from your supply catalogs?

Ms. YAP. GSA currently reports on all stock purchases of CPG compliant products, not only for GSA, but for the entire Federal community. This data is reported to OFEE and OFPP in our annual report.

With regard to further options for tracking data collection, with your permission, I would like to answer this for the record.

Senator JEFFORDS. You may do that, and I appreciate that offer.

Can you estimate what percentage of total recycled content purchases for Federal agencies that this data represents?

Ms. YAP. Again, with your permission, I would like to answer that question for the record.

Senator JEFFORDS. You may do so. Thank you.

In 1991, the Senate Governmental Affairs Committee held a hearing on Federal procurement. GSA was asked whether schedules could reference other schedules that had green products. The answer given back was yes. I understand that this has not been done. Why not?

Ms. YAP. At this time, the supply catalog does identify products with environmental attributes. It identifies the recycled content of the products. We also have an environmental products catalog, products and services catalog.

Senator JEFFORDS. I have heard the suggestion that GSA add a pop-up banner at the beginning of the schedule to remind the purchaser to buy green and inform them that this particular schedule includes EPA designated products. Why can't GSA do this to provide information to the customers?

Ms. YAP. I represent the Public Building Service. I don't have the technical expertise to answer that question. With your permission, I would like to answer that for the record.

Senator JEFFORDS. What is GSA doing to actively seek vendors of green products?

Ms. YAP. In our solicitations, our commodity centers are seeking vendors who have products with environmental attributes.

Senator JEFFORDS. How are they doing that, is the question? If there's someone there that knows this answer, they can testify at this time, rather than having to—just identify yourself, pull up a chair, be comfortable.

Mr. URNEZIS. Thank you. My name is Matthew Urnezis. I work with Debra.

When we take a look at procurements that are for materials that FSS buys, we do a solicitation. And the solicitation asks for environmental products. We do market research. We go out and find what marketplace materials are there, so that we can take and buy those items. That's part of the FAR requirement, that we do the market research. Part of the FAR clauses then have the contractor identify those products.

Senator JEFFORDS. How successful is that, in your judgment? Is it working?

Mr. URNEZIS. On the paper commodities, I think we're doing a very wonderful job. That's very clear, and it's easy for us to track. Some of the other ones that have just been added that are new, it's taking a little while for the industry to come up with products.

We're also, Debra had mentioned, doing rulemaking, the rulemaking is going through that's requiring vendors to identify products also. So it's two approaches. One is looking at market research, the other is saying, OK, vendors, when you have a product, you have to identify it, you have to show us that it's there, so that we can go forward with the Federal customers so they know.

Senator JEFFORDS. How far along are you in this process?

Mr. URNEZIS. The rulemaking is taking place right now. It's near final publication.

Senator JEFFORDS. What is the status of requiring vendors to indicate which of their products should be identified with a CPG icon? I understand that a year ago, GSA was going to require vendors to identify CPG products. I understand the policy was never issued.

Mr. URNEZIS. The program is in place where a vendor can currently identify their CPG compliant product on a schedule. The rulemaking will then make that a mandatory requirement. But they currently have that capability right now.

Senator JEFFORDS. When will the rulemaking be finalized?

Mr. URNEZIS. It's been out for public comment, waiting for OGC approval.

Senator JEFFORDS. GSA has a critical role to play in educating purchasers. The Federal Acquisition Institute is supposed to develop green purchasing training for the acquisition community. I understand the Institute began to develop an online training course, but it was never completed. Is that correct, and if so, why not?

Ms. YAP. With your permission, we would like to answer this question for the record.

Senator JEFFORDS. All right.

For each CPG product that GSA has in the stock program, why can't GSA stock only recycled content products?

Mr. URNEZIS. GSA does offer non-compliant products. These include products made with virgin materials. But also, others that have some environmental attributes, such as recycled content. But not a percent sufficient to meet EPA's recommendations under the CPG program.

There are exceptions allowed for not purchasing CPG-compliant products: when the compliant product does not meet the appropriate performance standard, is not available competitively in a reasonable timeframe, or is only available at an unreasonable price. Therefore, FSS carries alternatives for its customers. Our agency's affirmative procurement program instructs everyone who is using an exception to a purchased product with the highest environmental attributes practical, has to note that and has to put that as part of their justification.

We will work with the Federal Environmental Executive and EPA if we see a pattern developing of specific products to eliminate the cause for these exceptions, either price, availability or timeliness. And in some cases, it may just an internal issue requiring education. In other cases, outreach to the contractor community will be required. But we haven't seen any pattern of that yet.

Senator JEFFORDS. Is GSA willing to promote reduced packaging and packaging that contains recycled materials?

Mr. URNEZIS. I have no information that we haven't been willing to do that.

Senator JEFFORDS. All right, well, I appreciate your testimony. I will be back with you when I get your response in writing to those questions that you asked to have time to do so. As you may understand, I feel very strongly about this issue. It is my intention to continue to work with you and work together to make sure that we do the best job we can to maximize utilization of our goals here. So thank you.

Our second panel, the first witness Mr. Dobbins Callahan, who is the General Manager of the Government Markets for Collins and Aikman floorcoverings, located in Dalton, Georgia. He is testifying on behalf of the Buy Recycled Business Alliance. Mr. Callahan, pleasure to have you here and please proceed.

STATEMENT OF DOBBINS CALLAHAN, CHAIR, BUY RECYCLED BUSINESS ALLIANCE, AND GENERAL MANAGER, GOVERNMENT MARKETS, COLLINS AND AIKMAN FLOORCOVERINGS

Mr. CALLAHAN. Thank you, Senator Jeffords and Senator Smith, and to the rest of the committee for allowing me to be here today.

I do serve as chair of the Buy Recycled Business Alliance, we call it BRBA, an organization within the National Recycling Coalition that is dedicated to bringing purchasers and vendors of recycled products together to advance the purchase of these recycled products. My company, C&A floorcoverings, has been involved with BRBA for several years. We manufacture high performance carpets

with very significant recycled content. These products are also 100 percent recyclable.

I would like to commend the work of the ad hoc coalition, the National Recycling Coalition, the Steel Recycling Institute, the American Plastics Council, the Recycled Paper Board Alliance, the American Zinc Association, and the Consumer's Choice Council, for working together to focus attention to this very important issue.

One of the two aspects of Federal purchasing of recycled content products with which I am most familiar is EPA's "designation" of recycled content products through the CPGs, the Comprehensive Procurement Guidelines, as prescribed, of course, by RCRA 6002 and Executive Order 13101. Implementation of these guidelines does fall under the Office of the Federal Environmental Executive. Designation, as we know, means that EPA has studied the product category and found suitable products within that particular category to be available with meaningful recycled content. Once products have been designated by EPA, the purchase of those products with recycled content is essentially mandated for Federal purchasers.

As good and as committed as EPA people are, and they are good people and they are committed to what they're doing, there are two obstacles intrinsic to the designation process. One, before designation can occur, there must be competitive products available. EPA will not designate a product unless there are other manufacturers manufacturing similar products with similar recycled content. This means that the most innovative products can't be designated until another product comes along to compete. I suggest a category short of designation, recognizing a new product that meets the goals, but which has no competition yet. This recognition would allow Federal agencies to use procurement of these products to meet their recycled content purchasing goals, but would not be mandated. And I do understand that this would have to go through the rulemaking process.

Another obstacle to taking these products to the marketplace through the CPGs is the sheer amount of time that it takes to go through the designation process. It literally can take years. EPA simply doesn't have the resources available to accomplish this task in a timely fashion. Unfortunately, this situation is exacerbated by industry. EPA invites industry to participate in the designation process. Unfortunately, the process can be slowed by less than complete information or worse, by misleading information. EPA simply doesn't have the resources to sort through the barrage of information that it receives when it opens itself up to industry.

Next, I would like to speak about the General Services Administration and my experiences through BRBA and through my company with them, and particularly, GSA's National Furniture Center, just across the river in Arlington as an example of how to effectively facilitate the purchase of recycled content products. GSA, through its innovative Multiple Award Schedules, can and does offer a wide variety of products to the Federal marketplace, including recycled content products, even when there are no competitive products available. And through the pricing mechanism that GSA uses, there is the assurance that prices offered to the Federal Government are the lowest prices that the best customer could enjoy.

If the barrier of not recognizing products which have no competition can be overcome, GSA does offer a vehicle to get these products to the Federal marketplace with full assurance that pricing is at best value levels. Other examples of what GSA is doing is Planet GSA trade shows to bring Federal agencies into contact with those companies that are providing products meeting Federal agencies' needs for environmentally preferable products, and through the Furniture Center, the Evergreen award recognizes and gives credibility to vendors providing the best environmental programs for Federal customers.

Finally, the Furniture Center's Quality Partnership brings vendors and Federal purchasers together to develop more effective and more efficient means of procuring products, again including recycled content products. I attend the QPC meetings and know them to be an effective mechanism to make Federal purchasing, including purchasing of recycled content product materials, to be constantly improving. Another suggestion I would have is that the QPC model be expedited through other procurement centers throughout the country.

The theme that I've tried to develop is that most of the mechanisms are in place for more effective purchasing of recycled content products by Federal purchasers. With adequate resources, a resolution of the competitive requirement and a means to hold industry more accountable through the CPG designation process, EPA can be effective in designating more products more quickly. GSA, through its Multiple Awards Schedule, has a vehicle to take these products to the Federal marketplace and innovative programs like Planet GSA, the Evergreen award, and the Furniture Center's Quality Partnership Council can reinforce the good work currently being done by the Office of the Federal Environmental Executive.

Thank you, sir.

Senator JEFFORDS. Thank you.

The next witness is Clifford Case, who is a partner with Carter, Ledyard and Millburn, located in New York. Mr. Case is testifying on behalf of the National Recycling Coalition, an organization he co-founded in 1978. Thank you for being here this morning, and please proceed.

STATEMENT OF CLIFFORD P. CASE III, PARTNER, CARTER, LEDYARD AND MILLBURN

Mr. CASE. Thank you, Senator.

An important reason for the formation of the National Recycling Coalition, as you noted, in 1978, was in fact to work for the implementation of Section 6002, which had been passed, of course, 2 years earlier, as a part of the Resource Conservation and Recovery Act. We wanted to work to see that Section 6002 was enforced, along with other later initiatives to try to increase Federal Government purchasing of recycled products.

So as an organization we have some history here, and I personally do. Have we done enough in the past quarter century? It's a little shocking to think it is a quarter century, but it is, to comply with Section 6002, and the executive orders that have been issued? I'm afraid the answer has to be no. Things started out on the wrong foot when the EPA failed to issue any guidelines for recycled

products, forcing the National Recycling Coalition and Environmental Defense to sue EPA to get a court order requiring that the guideline process be commenced.

In general, Federal agency procurement does not take advantage of the broad range of high quality recycled products that are available in the marketplace today. The GAO report that you referenced, Senator, documents that most agencies do not know what recycled products are available or how to get them. Purchasing data is fragmentary. Many agencies report little or no information, and important components of many agencies provide little or no information.

I was struck by the note in the GAO report that within the Department of Defense, no information was provided by the Armed Services, the Army, Navy and Air Force, major, major components of the total picture. Moreover, and this is very important, the programs that do exist cover direct agency purchases only. I know of no instance in which agencies make any effort whatsoever to assure compliance with Section 6002's affirmative purchasing requirements by their contractors and grantees. This is obviously of vital importance, because purchases by contractors and grantees using Federal funds often are much more significant than the purchases by the agencies directly.

GAO notes that in fiscal year 1999, 85 percent of the total outlays of the Department of Housing and Urban development were for grants to States and local governments, 69 percent of the total outlays of the Department of Transportation were for such grants. It is safe, I think, to say that none of those grantees knew that by law, they were required to give a preference in purchasing to recycled products. This, I'm afraid, can only be characterized as bureaucratic foot dragging, which has lasted for more than two decades and it is very frustrating to those of us who have been advocates for more recycling over the years. Every time a Federal agency fails to buy a product made from recovered paper, plastic or metal, it condemns that material to a landfill instead of to a new constructive and productive rebirth as a recycled product. Every time a Federal agency fails to require its contractors to use recycled building products, the materials that could be used in those products, again, are going to be thrown away.

This isn't an academic issue. I'm sure you're aware of news stories about a variety of reusable programs, including those in my home city of New York, which are being threatened by the lack of markets for recovered materials. Just as of July 1, I'm going to have to throw out my glass bottles and my plastic containers in New York, because they're not going to be collected by the city. I have some problem with the rationale that the City's department of sanitation has presented for that change. Nevertheless, it's a real problem that faces many municipalities.

What can we do? I think there are a lot of things that we can do. I've cited several in my testimony. For example, codification of existing executive orders on procurement, to give statutory sanction to principles such as design for recyclability, life cycle costing and reliance on environmentally preferable products, requiring major improvements in the woefully inadequate information collection system that we have now for purchasing recycled products, so that

progress or the lack of progress can be noted, providing mandatary training programs for Government buyers, and I would advocate a congressional award program to recognize those public servants who, despite all the obstacles, still manage to buy recycled successfully.

One other idea that I want to mention is, let's make clear that the citizen suit provisions of the Resource Conservation and Recovery Act apply to procurement agencies, so that if they don't buy recycled products in conformity with law, they too can be sued, just as EPA was sued by the National Recycling Coalition, for failure to comply. And let's shift the burden to the procuring agencies, once a product has been designated by EPA as available in recycled form, let's shift the burden to procurement agencies to defend what they have done. And naturally, of course, provide for recovery of attorney fees by successful plaintiffs.

That's one way I think we can do a lot more to encourage compliance with this important Federal program. Thank you.

Senator JEFFORDS. Thank you for very helpful testimony.

Our next witness is Fred von Zuben, President and CEO of the Newark Group, which is a 100 percent recycled paper board manufacturing company headquartered in Cranford, New Jersey. Mr. von Zuben is testifying today on behalf of the American Forest and Paper Association. Welcome, and we look forward to your testimony.

STATEMENT OF FRED VON ZUBEN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, THE NEWARK GROUP

Mr. VON ZUBEN. Gentlemen, members of the committee, thank you for holding this hearing.

As you said, my name is Fred von Zuben. I'm here on behalf of the American Forest and Paper Association. My presentation is a summary of written testimony, which I ask be included in the record.

Senator JEFFORDS. It will be.

Mr. VON ZUBEN. I am President and CEO of the Newark Group, a 100 percent recycled paper board manufacturing company headquartered in Cranford, New Jersey. My company has been in the recycling business for over 100 years. When it comes to recycling, I believe that paper products have received more attention than any other product. The last time our industry was here to talk about recycling, you wanted us to do more. I am happy to report that we have met and surpassed all expectations. We are still picking up Mr. Case's paper in New York, by the way.

[Laughter.]

Mr. VON ZUBEN. The American Forest and Paper Association, AF&PA, represents over 240 members of the pulp, paper, paperboard and wood products industry. We have large international companies with paper mills employing thousands of workers, small family owned paper and sawmills and everything in between.

Recycling and recovered fiber in our business is an integral part of our whole setup. In the 1980's, the public and the Congress demanded higher recycling levels. In response, AF&PA members, our company included, pledged to recover 40 percent of all paper consumed in the U.S. for recycling. This was unprecedented. Many, in-

cluding some in our own industry, were skeptical. Billions of dollars went into new mills and facility upgrades. We virtually institutionalized the market for clean, sorted papers from residential and commercial users across the U.S. We reached the 40 percent goal and raised it to 50 percent, which we expect to meet within the next few years.

Let's look at a few facts. According to EPA, more paper is diverted or recovered from municipal solid waste than all other materials combined. Paper recovery increased 97 percent since 1987 when the recovery rate was 28.8 percent. Recovered fiber now accounts for almost 38 percent of the industry's raw material supply. The bottom line is, we have done well, but a serious crisis is looming.

The demand for recovered fiber is growing even more rapidly than the supply. Domestic paper mills will be squeezed in coming years by an anticipated 50 percent surge in U.S. exports of recovered paper. The two largest recovered paper grades, news and old corrugated, are expected to be in particular tight supply in the coming years. We anticipate using even more mixed papers from homes and offices to fill the anticipated gap. If we don't turn the situation around, companies like mine run the real risk of shutting down our paper mills.

Misguided waste and procurement policies will make the problem worse, conceivably, not better. Policy makers and regulators look at a pile of paper and see waste or garbage, something that needs to be disposed of, incinerated, landfilled or recycled. I look at that same pile and I see a valuable raw material. I see something I can use to make a new product. Yet we continually fight against programs that give financial incentives to those who would use recyclable paper as a fuel, or municipal waste managers who would deny us access to recovered paper in their communities.

On the procurement side, politically attractive but simplistic ideas like raising the content requirement for copy paper from 30 to 40 percent may actually hurt more than they help. They simply move the limited supply of quality recovered fiber from one product, like tissue or paper board, into another product. They don't necessarily lead to more recycling.

In like manner, the Federal Government may need to rethink its preference for post-consumer paper. Let me assure you that today, paper diverted or recovered from the waste stream will be recycled or reused. Pre-consumer or post-consumer, we will use it. Artificial distinctions are economically damaging and ironically, create more paperwork.

Mr. Chairman and members of the committee, there are many reasons for the Government to take the lead in promoting recycling. Leadership, however, means taking a leadership role on both sides of the equation, supply and demand. Without a doubt, purchasing managers need to be more cognizant of what they buy. At the same time, building managers need to be more cognizant of what they throw out and what they recycle.

Given the unprecedented use of recycled fiber throughout industry, we offer the following recommendation. Have the Office of the Federal Environmental Executive, OFEE, give greater emphasis to recovery of used paper within the Government. Currently, many

Federal facilities do not offer collection programs or fail to encourage participation in those programs which exist. Rather than continue its do as I say and not as I do posture, it is time for the Federal Government to lead by example.

Mr. Chairman, there are additional ideas put forth in the written testimony. The paper industry is proud of its recovery and recycling record. This is not the periphery of our industry, but a vital component of our economic health and well-being. We look forward to working with you and members of the committee as we evaluate Federal policies to encourage ever-increasing paper recovery in the U.S., and an opportunity to engineer the most efficient use of this fiber.

Thank you very much, Mr. Chairman.

Senator JEFFORDS. Thank you very sincerely for an excellent testimony.

Now let me go to questions. First, Mr. Callahan, I appreciated your pointing out the responsibility that industry has in the Federal procurement process. On a scale of one to ten, how well is GSA doing at creating the demand necessary for businesses like your own to succeed?

Mr. CALLAHAN. I'm not great at categorization that way, but I would say GSA is doing a very good job, maybe an eight, maybe a nine, but a very good job of creating the demand. But I would say that I don't view the primary responsibility personally for creating the demand to be GSA's responsibility. The demand, in my opinion, is created by 13101 and the CPGs through the OFEE. And then I see GSA as more being a facilitator to help companies that manufacture recycled content products take those products to the Federal marketplace by establishing programs that make Federal customers aware of those products.

Programs like the "Planet GSA" programs, like "GSA Advantage,"which does have a green flag for those products that are recycled. GSA is currently working through the Quality Partnership Council that I mentioned, on a better mechanism of allowing vendors to know which products have been designated through CPG. From a perspective of allowing vendors to bring their products through GSA to the Federal marketplace with the imprimatur of the CPG, I think GSA is doing an excellent job, in the nine and a half, ten range, perhaps.

Senator JEFFORDS. You are obviously a good actor. How often do you see bad actors succeed in the Federal procurement process?

Mr. CALLAHAN. Thank you for that. We try. And unfortunately, if you were to ask me what the single greatest impediment to the procurement of environmentally preferable products, recycled products or products that have other environmentally preferable characteristics, whether it be to Federal agencies or otherwise within the country, I think the single largest obstacle is the, I'll use the term "ambiguity" in marketing claims that are made by people who are trying to promote green products.

We have seen examples over and over again, both within Federal agencies and outside of Federal agencies, where customers will say, either all of you are doing the same thing, so it doesn't matter, or no one is doing anything, so it doesn't matter, or I give up on trying to sort all this out, so it doesn't matter. So I would not feel

comfortable characterizing that there are bad actors necessarily within not just my industry, within industry. But there certainly is a significant degree of ambiguity in the way environmental marketing claims are positioned so that it creates a huge burden to purchasers to try to sort through the information.

Senator JEFFORDS. Mr. Case, in your testimony, you mentioned the need for mandatory training for procurement officials. Can you elaborate on what you envision this training program would look like?

Mr. CASE. Well, I think the best thing would be if the range of officials who are responsible for purchasing were first notified clearly of what their obligations were, and then taken step by step through the process of identifying recycled products, finding out their characteristics, finding out where they can be used and where if at all they cannot be used, and then coupling that with better information about the range of products that are available. Following up that with courses to identify problems, so that we're not just dealing with a one time training program, but a continuing effort to both feed back with problems that have been identified and resolving those problems.

The National Recycling Coalition has for many years had Buy Recycled programs, such as Dobbins Callahan has mentioned. We've also done training for procurement people. We can provide you specifics for programs that work.

Senator JEFFORDS. Mr. von Zuben, growing numbers of environmental groups are promoting the purchase of paper that is considered to be more environmentally preferable, paper containing high post-consumer recycled content, chlorine free processing, zero growth forest content, agricultural residue or other alternative fibers. How should purchasers prioritize these environmental attributes when making purchasing decisions?

Mr. VON ZUBEN. Well, in my talk today I was really focusing on the supply side, Mr. Chairman. But I would say that as an industry association, we think our record speaks for itself. We have taken a position that the fiber goes to where the market directs it, i.e., if it's best for fax-copy paper to go into tissue or paperboard, it goes there simply because dollars send it there. So in terms of what you buy, I think the marketplace is determining, as best we see it, where the recovered fiber goes. It goes into the recycled product that gets purchased.

So we have a little different opinion. In terms of specifying, is this environmentally friendly, we need to ask in what way is it preferable. Is it just recycled content, or are there other issues that we're all working on these days in terms of energy, etc. But I would add that the industry is very happy to be able to say that we have cleaned off the supply train. We are really suffering right now from a lack of fiber. So any mandated procurement criteria actually does not help the mechanism that we live with every day, which is the free market system.

Senator JEFFORDS. What is the paper industry doing to help purchasers prioritize the attributes?

Mr. VON ZUBEN. I would have to say that the individual members of our organization are out there calling on people at all times. I think we operate under the FTC guidelines when presenting our

products in brochures, or whatever we use to market our products. We use truthful statements. We have always felt that a level playing field was very, very important. You ought to get a pound of credit for a pound of environmental goodness, so to speak.

We've always said we want to present our products in this manner, and simply say, if you are going to be buying green, then paper is an excellent product in its overall characteristics. We have been engineering paper for 100 years in hundreds of ways to use recycled fiber where it makes economic sense. So it's a little different situation. Recyclng is a vital part of our business. Thirty-eight percent of our industry's raw material comes from recovered fiber.

This isn't something we started working on over the last couple of years. We've been working on recycled products for 100 years. Our company, as a matter of fact, received the patent, back in 1898, to turn newspaper into paperboard. Recycling is something we've been at a long time, and we do our engineering and work it through the market system. So in order to fully answer your question, we probably need a seminar.

Senator JEFFORDS. What can the Government do to promote and supply your company needs to meet increased demand?

Mr. VON ZUBEN. We have two suggestions in our written testimony. We want to work with the OFEE on collection from Government buildings. We visit here and see that facilities are not set up so people cannot easily recycle. People want to recycle and we encourage it all the time. Every chance we get we thank people immensely for collecting and sorting their paper.

So maybe it's time for the Federal Government to take another look at the supply side for paper and help us a little bit. Because with the anticipated 50 percent increase in the export of recovered paper, we're facing a serious challenge in our business. This is a huge amount of paper that's going to be exported out of this country. I make 100 percent recycled paperboard, so I don't have a choice about my fiber supply. I cannot cut a tree down; I'm a friend of the family.

Senator JEFFORDS. Mr. Callahan, you mentioned ambiguity in the process. What can be done to address this problem?

Mr. CALLAHAN. Ambiguity in the marketing claims, sir?

Senator JEFFORDS. Yes.

Mr. CALLAHAN. We have studied the Federal Trade Commission guides for environmental marketing claims and find that they are a model of clarity, easy to understand. If someone reads the environmental marketing guides as issued by FTC, you read it and say, "I get it," because it's so clear. Several things are actually being done. The National Recycling Coalition is undergoing an educational program that we will take throughout the country to try to help people understand better that there are guides that can be used in evaluating marketing claims.

As I mentioned, the GSA Quality Partnership Council is also undertaking a very similar program right now, not from a regulatory perspective, because that's not what the partnership does, but from an educational perspective, to help vendors understand what the right way to phrase marketing claims is, and also to have the contracting officers to understand, not what 13101 is, because we

think that most contracting officers now, at least the majority, understand 13101, but to understand, if someone comes to them and says, this product has recycled content, how to evaluate that claim.

Just as a quick example, a claim could be made that a product is manufactured using 100 percent recycled content, and we've seen that claim. A reasonable contracting officer would expect that means that the product is made using nothing but recycled content. The person making the claim could have meant that some of the content of the product was 100 percent recycled. So the ambiguity is there. Maybe neither one meant to mislead. What GSA and NRC are trying to do is educate people in how to look at these claims and how to evaluate what really could be behind the claim itself.

I know that the Federal Trade Commission guides are the law of the land. But I think that the FTC also doesn't have a huge staff, as you would know. I don't know the legislative process well enough to understand how this would work, but if FTC guides could be more incorporated into any responses that are made to any Federal activity regarding purchasing of environmentally preferable products, I think that could be very effective. I'm not sure if I'm saying it right, but if there was a way to bring the FTC guides more to bear in the Federal purchasing process, I think that would help to clear up the ambiguity.

Senator JEFFORDS. Let me ask all three of you just this question. Has any great thought come to mind as you two have been talking that you would like to share? I don't want you leaving here with something unsaid that you would like to say.

Mr. VON ZUBEN. I would like to return to the question you asked about the help we need. We certainly want to work with the committee. The post-consumer, pre-consumer distinction is an issue that we've lived with for a long time, and I think it's unnecessary. Also, removing recovered material, and particularly paper from waste definitions in RCRA would be one of the most significant things you could do to help us. We constantly are embroiled in solid waste issues when we're really in the recovered paper business. And this is a huge business. This is not something we do just on the weekends.

It would be very helpful if we could find some means of taking recovered materials out of that RCRA solid waste definition. Thank you.

Senator JEFFORDS. Mr. Case.

Mr. CASE. Senator, I think one of the very important things that this body can do is to keep the heat on. It's been 10 years, as I think you noted, since the last hearing on Government procurement. Ten years in geologic time is a short interval, but in real time, in terms of developing industries, it's a very long time.

So I think, just as you mentioned, there are annual hearings on interstate transportation of waste, I think there should be a similar short timeframe between such attention focusing. Because frankly, if somebody is sitting off in an agency some place buying things and they don't hear from you for 10 years, they don't really have that much incentive, they don't have the spotlights, they don't have the attention focused on them that they need in order to change. I think that would be very positive.

I mentioned a way to use the sort of private attorney general approach to try to encourage greater purchasing. Those are the two main suggestions in addition, of course, to the education, that I think I'd like to leave with the committee.

Senator JEFFORDS. Thank you. Mr. Callahan.

Senator my perspective, and BRBA's perspective, is that the American public wants to do the right thing, whether it's the commercial American public or the Federal American public. We have found that people really have a heart to buy recycled content products, where products are available to them that serve their purposes.

We have found that perhaps the greatest way to encourage that is just to continue to bring attention to the good things that can be done and to create within the organizations that are responsible for that, GSA, EPA and others, the mechanisms to facilitate the free flow of information and the free flow of products from vendor to the consumer. And quite frankly, I'm impressed with all the things that have been done in that area.

But most importantly I think is to continue to bring public light to this very important issue. That in my opinion, sir, is exactly what your committee is doing here today, and I would just like to thank you and commend you for this work, and just encourage you to keep doing what you're doing and looking into these matters and trying to make them work better.

So thank you very much.

Senator JEFFORDS. Thank you.

Senator Carper, if you have anything you would like to ask of this panel.

OPENING STATEMENT OF HON. THOMAS R. CARPER, U.S. SENATOR FROM THE STATE OF DELAWARE

Senator CARPER. I sure do. Thank you, Mr. Chairman. I dropped in not from an airplane, but from a train.

I used to be Governor of Delaware, I did it for 8 years. And gosh, for probably 38 years, I've been recycling. I drive my wife crazy with all that we recycle in our homes, from newsprint to white bond paper, all kinds of paper, clothes hangers, plastic, we do Styrofoam, you name it, we recycle. We try to set a personal example.

When I was Governor of Delaware, I never was satisfied with the job that we did in my State in terms of encouraging recycling, although we did, I think, take some modest steps. We don't have curbside recycling in many places in Delaware, although we're doing it now as a demonstration in a variety of places.

But the issue is one I have a whole lot of interest in, did then and do now in my new job. I learned or came to believe over time that one of the best things we could do to encourage recycling is to provide markets for recycled goods. As you know, the volatility of prices for anything from newsprint to aluminum to glass and other recyclables is so unpredictable, to the extent that I'm convinced that to the extent we could provide better support in the marketplace, more demand for products with recycled goods, that we could do a whole lot better at the other end in terms of encouraging communities and citizens to recycle.

I apologize for missing most of your statements. I'm just going to ask each of you to take a minute and tell me what you think I need to know from what you said. Just to start with you, Mr. Callahan. If you want me to walk out of here taking nothing else but one or two thoughts, what would they be?

Mr. CALLAHAN. The two thoughts, sir, would be that the designation process takes too long, no matter how good and competent and committed the folks at EPA who are doing it are, the designation process takes too long. And products that do not have competition cannot be designated. That's part of the rules. Therefore, the most innovative products cannot be taken to the marketplace through the CPGs, because there is no competition. And I suggest that there could be a way to address that.

The second thing I think would be that there are examples of Federal agencies who are doing a terrific job of facilitating taking recycled content products to the marketplace, particularly GSA's National Furniture Center across the river here in Arlington. I think the third thing, if I may have three, is a way to address ambiguity of marketing claims within the environmental community, so that all of us are better educated on what we should say about our products, so that we phrase the recycled content or the environmental preferability of our products in a way that is common, would facilitate the purchasers of these products trying to evaluate what's being brought to the marketplace.

Senator CARPER. Good. Thank you.

Mr. Case, a similar question. A couple thoughts, if I remember nothing else, take nothing else from this, or maybe we take nothing else from this hearing, but several thoughts, what would those be?

Mr. CASE. I'll take a couple of points, Senator, if I might. One is that make clear the linkage between markets for recovered materials, as you indicated, and the strength of the process for recovering materials from solid waste. Without a market for the end product, there cannot be any viable recovery from solid waste. That's why the Federal Government's purchasing program is so important.

Let's have more congressional oversight at more frequent intervals, so we get to talk to the people who are actually carrying this program out and finding out what problems they have. Let's have more education for them so that they can in fact, the people whose main job is buying things for the Federal Government, let's make sure that they're properly trained. Let's make sure also that it is understood that the law applies not just to the direct purchase GSA buying copy paper, it also applies to the grantees and those who receive Federal moneys, people who are building roads, building buildings, doing all those very important, supplying automobiles, all of those very important things. They are obligated to have affirmative purchasing programs as well. And let's try to increase enforcement by considering, at least, the use of the citizen suit provisions, just as you do in——

Senator CARPER. Citizen what?

Mr. CASE. Citizen suit provisions, which are a part of RCRA, the Clean Air Act, Clean Water Act, have private attorney generals help. I think we'd be eager to help in that area if we had an opportunity.

And those are the things I'd like to leave you with today, Senator.

Senator CARPER. That's great, thank you, sir.

Mr. VON ZUBEN. Senator, one thing I'd like to leave you with is the fact that the American Forest and Paper Association, which I'm representing here, came here and talked about increasing paper recycling in 1987. We told you we'd deliver 40 to 50 percent recovery rates and we've done it. That's something I'd like you to understand. In fact, we have invested so much money in our businesses—billions of dollars—that at this point in time, the paper industry does not have an adequate supply of paper to recycle. We literally will see some cases where recycling operations will be shut down because the supply of recovered fiber is not there.

I would say the paper industry has a unique problem. We have a supply side consideration. Secondarily, being a lifelong recycler, getting tied up in RCRA with solid waste issues has meant all kinds of problems: flow control and issues that nature. It haunts us in every municipality, because this is a business that runs city by city, town by town, as you described. Really, when we get lumped into solid waste problems, we get fighting mad. I'm in New Jersey so I'm watching the interstate haulers go by, and I don't want to be part of that problem. My business is to take recovered paper and make a new product out of it. I'd like you to leave with that thought, if you would please.

Senator CARPER. Those are good thoughts, thank you very much. Thank you for being here today.

Senator JEFFORDS. Thank you very much. We reserve the right to funnel some other questions to you. But I wouldn't be too worried about it.

[Laughter.]

Senator JEFFORDS. But I deeply appreciate your being here today. You've been extremely helpful in better understanding what we should be doing and what we can do and what you are doing. We appreciate that very much. Thank you.

We want to welcome our third panel, and last panel. First we have with us Darryl Young, who is Director of the California Department of Conservation. We have Edward Boisson, who is a consultant with considerable expertise in the recycling field. And Kevin Dietly is with Northbridge Environmental Management Consultants, based in Westford, Massachusetts. Mr. Young, please proceed.

STATEMENT OF DARRYL YOUNG, DIRECTOR, CALIFORNIA DEPARTMENT OF CONSERVATION

Mr. YOUNG. Good morning, Mr. Chairman, and members of the committee. I'm Darryl Young, Director of the California Department of Conservation. Today I'd like to speak to you about California's unique experience with beverage container recycling and producer responsibility. California's version of the bottle bill is a dynamic work in progress where all stakeholders have played a role and have an interest in seeing our program succeed.

Our program has adapted to changes in consumer behavior and market dynamics. For example, when California's program began in 1987, it basically covered soft drinks and beer. But today, the

market has changed. There are more beverage types and consumption has changed as well, particularly non-carbonated beverages.

So in January of 2000, California expanded the program to include fruit drinks, soft drinks, such as coffee, things like Frappacino, tea, sports drinks and bottled water. This addition of some 3.5 billion containers constitutes the single largest expansion of a recycling program in the Nation. The result is that last year alone, 400 million additional containers were recycled and kept out of landfills.

Another unique feature of our program is the principle of California redemption value. It is important to note that the California redemption value system, or CRV, begins with beverage container distributors paying a redemption payment into the recycling fund, which is administered by the State. And that's a unique feature. This is based on the number of containers that beverage manufacturers sell.

The central deposit fund is used to pay CRV deposits back to recyclers. In other States, deposit funds are handled entirely by beverage manufacturers. From a consumer viewpoint, the system is much simpler. Consumers pay CRV to the store when they purchase a beverage. The CRV is 2.5 cents on containers less than 24 ounces, and a nickel on larger containers. When redeeming the container at the recycling center, consumers get back the CRV deposit and the container's scrap value. And that's a notable difference. This is a feature which provides an additional financial incentive for people to recycle. Most of the supply is to aluminum.

So how do consumers redeem containers? Where do they redeem containers? Unlike most bottle bill States, California does not force recycling containers inside supermarkets. This was an important requirement sought out by our State's retailers. Although recycling centers existed before the program, they were not always conveniently located. So the program set up areas around supermarkets called convenient zones, that are served by a recycling center. Supermarkets typically arrange to have a convenient zone recycling center set up in the parking lot. This adds a considerable amount of consumer convenience and adds additional recycling opportunities for consumers.

The program also has other unique recycling opportunities. Unlike other States, California's program incentivizes the creation of other recycling opportunities. If consumers choose to use the curbside, the curbside program recoups the CRV. The same is true of recycling opportunities at parks, sports stadiums, schools and workplaces. The rule is that whoever collects the container is entitled to the CRV from the State. This helps to offset the cost of individual recycling programs and is a unique feature of California's program.

This process also has unique benefits. The State-run deposit fund is efficient and less labor intensive than a traditional bottle bill. California's program mixes the deposits on all containers. This frees retailers from handling the deposits on the containers that they sell. It also allows retailers to operate like retailers and doesn't force them into the role of a recycler, something that was very important to retailers in California. The system also benefits

private industry recyclers if they don't have to track individual manufacturers' containers through the entire recycling system.

But what happens to the unclaimed deposits, the cans that are not recycled, what happens to that CRV? Well, unlike most other States where beverage companies keep the unclaimed deposits, the cash from the unclaimed deposits in California is put to good use to promote recycling, to create recycling opportunities and promote recycled content in beverage containers. For example, the funds are used to offset unique costs to convenient center recyclers in parking lots of supermarkets. Additionally, California also offers other subsidies and grants to help promote recycling, from local curbside programs to local conservation corps, park districts, schools and universities, and basically other innovative projects that promote recycling opportunities.

Beyond redemption payments paid by beverage distributors, as I mentioned earlier, California's program also has other requirements for producer responsibility. Some containers, notably glass and plastic bottles, do not have sufficient scrap value to cover the recycler's cost to handle them. When this occurs, California's program imposes a small processing fee, around two-tenths of a cent on each container, and requires manufacturers who choose to package their product in this material to pay the small amount. In recent years, I must note that this fee has been partially subsidized by the California Redemption Value Fund.

Beyond these fees, California's program addresses the demand side of recycling, something you mentioned to try and establish, by requiring bottle manufacturers to use a 35 percent recycled glass content and 25 percent for plastic bottles in some instances. So what are the challenges? With a program as complex and as large as California's, it is a dynamic system, not without challenges.

But one problem we have is the issue of fraud. As the program has grown in size and scope, the potential for fraud has grown. While mandatory audited reporting of participants in California provides for early fraud detection, fraud is still a factor, albeit a small portion of the total redemptions in California. We are working with Federal, State and local law enforcement to vigorously identify and prosecute fraud.

Another challenge that we have is the decline in recycling rates. We believe that there are several factors that we have identified and we are trying to address those. We believe those factors are things like the sales of new containers have outstripped the returns, especially in the area of plastic containers. Additionally, away from home consumption, in other words, people drinking beverages not at home, has created a lack of opportunity for people to recycle. They don't usually want to take those things back home, they want to be able to recycle some place close.

And last, as California's deposit is the lowest in the Nation, its value as a motivating factor has declined due to inflation. Actually, there is one actual bigger factor that we are aware of, and that is with the addition of all these new beverage containers, the rate has dropped because consumers are not aware of the value of these new containers that have been added into the system, such as bottled water and iced tea.

The good news is that the decline in recycling has stabilized, and more importantly, we've seen an average overall volume to the number of containers recycled in 2000. And we would suggest that's a more important measure, how many beverage containers are you keeping out of the system before and now. Educating consumers to these new containers that are now part of the recycling system is an important part of the Department's groundbreaking social marketing campaign to change consumer behavior and increase awareness.

In closing, while ours is not a perfect system, it is a system where all participants make valuable contributions to make the system work. California's deposit program is significantly cheaper than traditional deposit systems, because the containers are not sorted by hand. California's system complements rather than duplicates curbside collection and provides flexibility to address different parts of the waste stream.

The fund created by the system is the engine that allows for adjustments to the system and changes in market dynamics. Our system is complex, but it is cooperation by all stakeholders that results in conservation. Thank you for this opportunity to speak before you.

Senator CARPER [assuming the chair]. Thank you, Mr. Young. Where do you live?

Mr. YOUNG. I live in Davis, California.

Senator CARPER. Mr. Boisson, do you pronounce your name Boisson?

Mr. BOISSON. Boisson is good, yes.

Senator CARPER. You've probably been called a lot of things, haven't you?

[Laughter.]

Mr. BOISSON. That's true. And I'd like to just point out, I'm the only one here whose last name means beverage.

[Laughter.]

Senator CARPER. I hope Mr. Dietly doesn't say Dietly means container or something.

[Laughter.]

Senator CARPER. Thank you. Please go ahead.

STATEMENT OF EDWARD BOISSON, BOISSON AND ASSOCIATES

Mr. BOISSON. Thank you, Senator Carper, and good morning.

I'm honored to be here today, and I want to thank Chairman Jeffords for calling this important hearing. More than ever, such leadership is needed to break the stalemate of the beverage container recycling policy that has endured now for over 30 years.

I am Edward Boisson, a consultant with 14 years experience evaluating and implementing recycling policies with the Government, industrial and non-profit sectors. Last year, on behalf of Businesses and Environmentalists Allied for Recycling, a project of Global Green USA, I managed the multi-stakeholder recovery project, a dialog among representatives of the beverage industry, the waste and recycling industries, State and local government and environmental organizations. Even though they held strongly opposing views, these participants were able to jointly release a re-

port documenting the costs, benefits and effectiveness of U.S. beverage container recycling programs.

My testimony today is largely based on the project's results and I'll refer to it from now by its acronym, MSRP. I was asked to provide information on the concept of beverage industry producer responsibility, and I have three main points I'd like to make. First, there is in fact a serious beverage container waste problem, and there are well documented, compelling economic and environmental reasons for solving it. For example, recycling the 114 billion beverage containers that were disposed in 1999, which was our study year, would have saved the energy equivalent of 27.4 million barrels of oil, and decreased greenhouse gas emissions by 4.8 million metric tons of carbon equivalent, all while fueling a plastics recycling industry whose growth depends specifically on new sources of raw material.

Unfortunately, recycling rates for all container types are heading down, not up. In fact, the aluminum can recycling rate has dropped to its lowest level in over 15 years, even though aluminum recycling yields the highest energy and greenhouse gas benefits than any other component of the waste stream.

My second point is that most stakeholders are actually able to agree on both the causes for why recycling rates are declining and what it would take to increase them. MSRP participants agree, for example, that future initiatives should all include financial incentives to encourage consumer participation, new collection programs targeting containers wherever they are consumed, both at home and away, and most fundamentally, because there is a net cost to beverage container recycling, there is a need for a long term, stable funding source to support the programs.

They also agreed on certain concerns, too, such as the need to ensure adequate markets for recovered materials, as has come up already, and the need to develop implementation strategies that can be fair to all parties involved, in particular, industry. So the problem, the need to solve it and the elements of the solution are all relatively clear. The question isn't really what needs to be done, it's how.

MSRP participants discussed three possible approaches and very importantly agreed that it should be possible to significantly increase recovery rates at unit operating costs that are relatively low. The first approach discussed is called optimized deposit systems. These are programs that seek to improve on the traditional bottle bills operating in nine U.S. States.

The surprising lesson from California that Darryl has just described is that the net operating costs of traditional programs that we calculated at about 2.6 cents per container recovered can be greatly reduced to as much as .55 cents per container recovered. This is less than typical curbside programs, which we estimated at 1.7 cents. So it's quite a reduction.

This can be achieved by using a central fund, so that containers need not be sorted by brand, by using highly efficient buy-back centers that completely eliminate the need for the beverage industry to handle recovered bottles, by using automated technologies like reverse vending machines, and by relaxing the requirement that all grocery stores accepted returned bottles in the store.

Some have critiqued the California program due to its complex and controversial funding mechanism, the processing fee. Our analysis does show that it is in fact vastly over-funded. But the ability to greatly reduce the net operating costs of deposit systems through the means I just described seems to me to be an indisputable fact, documented through the MSRP by the California data and also by data covering certain Canadian programs.

The over-funding problem that I just mentioned could actually be designed out of a national system by allowing industry to use the unredeemed deposit revenue to offset their costs and to develop its own funding mechanism. These are both elements of the system proposed in S. 2220.

In terms of effectiveness, deposit programs work in tandem with curbside programs as a system and other programs as well. In 1999, the overall recovery rate in deposit States was 72 percent compared to about 28 percent in non-deposit States. That compares with the overall national average of about 41 percent. The nine traditional bottle bills had an average redemption rate of 78 percent for those containers that they covered, which is typically limited to carbonated soft drink and beer, at least it was in 1999 before the California program expanded.

Though not analyzed in the MSRP, deposit systems in certain Canadian provinces achieve overall recovery rates between 74 and 85 percent. So deposit systems are very effective in recovering beverage containers, and I think that's a fact that's difficult to dispute.

Another approach discussed in the MSRP was to strengthen municipal programs. This is where much of the effort has largely been focused to date. There is no doubt that many municipal programs could increase their effectiveness and their efficiency, and there have been a variety of targeted programs in particular communities in the U.S. An example of a more comprehensive program is the system being developed in Ontario, Canada, in which industry will pay up to one half of the municipal recycling costs.

But because of their limited scope, the potential to significantly increase the national recovery rate by focusing on municipal programs is actually very low. To illustrate this, if a sustained major national education and promotion initiative were to boost participation rates, the number of people who actually participate in curbside programs, by 20 percent, and I'll just point out this is an extremely aggressive goal that has never been attempted, and would need to be sustained over time, that 20 percent increase in participation rates and curbside programs would yield only about a 5 percent increase in overall national recovery rates.

The third and final possible solution that the MSRP participants discussed is the idea of a non-deposit system that would have a stable, long term funding mechanism at its core. There is little experience with such programs in the U.S., and there is much room for innovative ideas. To have a sustained impact, such a system would need a long term funding mechanism, such as a fee levied at some point within the beverage value chain. And by way of illustration, a one half penny charge per beverage sold in 1999 would have yielded about $950 million that could have been used in a variety of ways to boost recovery.

Though not analyzed in the MSRP, an example of such an approach is the network of extended producer responsibility systems that are in place in European Union nations, and that are beginning to be implemented in other nations in Asia. Because the consumer incentive is not likely to be as great, these types of approaches are not likely to be as effective as the optimized deposit systems I discussed a moment ago.

In closing, I want to acknowledge the individuals within the beverage industry who have sincerely tried to find workable recycling solutions. And in particular, those in Coca–Cola North America, who participated in the MSRP. And also, Coke and Pepsi's publicly announced decisions to use 10 percent recycled content in plastic bottles is certainly a step in the right direction. But U.S. beverage industry support for broadly boosting recycling recovery rates nationwide has been limited to date even as aggressive producer responsibility policies have been implemented elsewhere, as I just mentioned.

The most important MSRP result is that there is great potential to solve the problem through innovation and cooperation. These are qualities that are certainly not in short supply in the beverage and recycling industries. The main questions to ask of any proposal are, how effective will it be, how much will it cost, who will pay and can it be implemented in a way that is fair to all players. The ultimate answer must involve a system of producer responsibility that is fair, efficient and effective, all three.

Given its flexibility in implementing a proven approach, the system called for in S. 2220 deserves careful consideration by Congress and by all stakeholders in recycling. In conclusion, again, I want to thank Senator Jeffords once again for sponsoring this important hearing and for allowing me to provide this testimony. I'll try to answer your questions as best I can.

Senator CARPER. Thank you very much.

Mr. Dietly?

STATEMENT OF KEVIN S. DIETLY, NORTHBRIDGE ENVIRONMENTAL MANAGEMENT CONSULTANTS

Mr. DIETLY. Thank you, Senator. My name is Kevin Dietly. I'm a principal with Northbridge Environmental Consultants in Westford, Massachusetts. I'm here today representing the Coalition for Comprehensive Recycling, which is a group of associations and corporations that represent container manufacturers in the country, the beverage industry, retailers, restaurants and labor unions.

I'm here to talk about producer responsibility in the beverage industry and would like to make several points. First, the notion of producer responsibility is hardly a new concept. Producer responsibility may be a new label, but it's something that's been around for a long time, given the long duration of deposit legislation in this country. So this is something that the beverage industry has lived with for some time, and as evidenced by Mr. Boisson's testimony and information, there is a great deal of evidence by which we can evaluate these programs and their history over the last 30 some years.

I'd like to make two general points in my remarks. First, I'd like to talk about the environmental benefit that producer responsi-

bility legislation would have, given the focus on the beverage industry and beverage containers in particular. I make the point that there is really very limited opportunity for significant environmental benefit as a result of focusing on beverage containers. It is critical to remember that even with the unprecedented scope of S. 2220, which would include more beverage containers than are included in any deposit legislation in the country, we're still only talking about affecting a little over 4 percent of the solid waste stream in the United States.

Given that we're not operating from a situation where there is zero recycling, but in fact we already have a significant level of recycling of those beverage containers, we're talking about incremental changes in the level of recycling for that 4 percent of the waste stream. Our calculations indicate that if a nationwide deposit legislation were implemented, we would only be talking about an increase perhaps of about 1 percent in the U.S. recycling rate. For reference, that would move EPA's 28 percent nationwide recycling rate to 29 percent. That would be the magnitude of effect that a nationwide deposit legislation would have, given its focus on beverage containers.

The situation with regard to litter is similar. Beverage containers account for a little less than 9 percent of litter based on studies that have been done across the country. That means that you're still leaving over 90 percent of the problem of litter out there and unaddressed by the deposit legislation. Even if you were to magically eliminate all beverage container litter through a deposit law, which even evidence in deposit States indicates you don't eliminate everything, you reduce it significantly but you don't affect litter that comes from the significant other sources.

So in general, we would not expect to see a significant environmental benefit, given the focus of this legislation solely on beverage containers. There is a much broader problem out there that needs to be addressed, that includes paper and other commodities that have already been discussed that have issues regarding supply and demand that need to be addressed comprehensively.

The second general area I'd like to address is the system that would be required to implement a nationwide deposit program. First of all, it's important to realize that things have changed a lot in the last 30 years. It's no longer a case that implementing a deposit program is the first and only kid on the block with regard to recycling. There have been billions of dollars of taxpayer money invested in infrastructure throughout the country to create drop-off and curbside programs. We have nearly 10,000 curbside programs today. When the first deposit law was passed, nobody even knew what curbside was.

What you're talking about with a national deposit system is layering another system of infrastructure on top of an existing recycling infrastructure that's in place. You've got to realize that there are significant consequences of superimposing those two systems. The most important thing is to look at what effect it would have on existing recycling programs that are out there.

Beverage containers contribute between 40 and 70 percent of the revenue earned by existing recycling programs. If you eliminate beverage containers from existing recycling programs, you're taking

revenue away from those existing programs that have been funded and promoted by local and State governments. The city of Columbia, Missouri recently voted to eliminate its unique municipal container deposit ordinance on the strength that, among other things, their existing curbside program was being damaged by the deposit law. In fact, since they repealed the deposits in April, they've seen record high levels of recovery through their curbside program, and the city expects to actually make additional money as a result of having the beverage containers in the waste stream.

We did an analysis several years ago of a proposed deposit law in Pennsylvania which suggested that Pennsylvania recyclers would lose over $30 million a year on aluminum as a result of the deposit law. It would move from the municipal to the deposit system.

Let's talk a little bit about the deposit system itself and what exactly that system entails. The deposit system requires consumers to take an extra step in recycling. If you currently go and put your containers in a curbside bin at the end of the driveway, you could no longer put containers in the curbside bin and expect to get your deposit back. You would have to make a separate trip, go to a separate place and separately store those containers. Right now, consumers are seeking more convenient and simpler ways to recycle, not more complex ways to recycle.

You also need a redemption network that needs to be out there. That means peoples, facilities, equipment, lots of infrastructure that already exists in large measure to cover these same materials, but that doesn't exist under the guise of a beverage container recovery system.

There is a lot of redundancy that would be established by this program, and there is a lot of cost that would come with this program. Just based on the 40 States that do not have deposits currently, we have estimated that the cost of establishing a nationwide system of beverage container recovery would be about $4 billion a year. That cost would ultimately be passed through to consumers.

In addition, we have computed that the unclaimed deposits in those 40 States would amount to an additional $4.8 billion. So that's $8.8 billion in consumer costs every year to operate this program.

I would also submit to you that you don't have to be a bad person in order to not claim your deposit. If you choose to use the existing curbside infrastructure and don't have the time or simply are making the tradeoff that the deposit is not worth it, you use your curbside bin. When you do, you lose the 10 cent deposit. So even though you're recycling, the deposit turns into a tax for those consumers.

In summary, I think it is important to realize that there is limited environmental benefit that's out there to be achieved by focusing solely on beverage containers. There is a much broader issue out there with regard to participation, capturing a much broader range of materials, and utilizing infrastructure that has the capacity to handle more materials. That comprehensive system can be operated less expensively, more conveniently and is much more what people are looking for.

Yes, people can do better, yes, all of us can do better in terms of encouraging and promoting recovery, whether it's at home or away from home. But the creation of a new system and a duplicate system to provide that infrastructure is not one that's appropriate at this time, in our view.

Thank you. I appreciate the opportunity to testify.

Senator JEFFORDS [resuming the chair]. Thank you all for your testimony.

Mr. Young, what parts of California's beverage container recycling program were you suggesting for a national deposit law?

Mr. YOUNG. Well, we are not going to suggest is that our program is a perfect fit for all the United States, but there are certainly certain elements of our program that you may want to consider. First of all, the dynamic nature of our system allows for adjustments because of the creation of this fund. So you want to consider that if you're going to go forward with this, to have a fund that allows you to have the flexibility.

I notice that your bill establishes a requirement that puts a lot of the burden on the manufacturers, which I think is perfectly fine. Because what it does is allow them to decide what works for them the best. So I would try to replicate that.

The other thing I would try to do is increase the overall opportunity for recycling. It's very important that people can recycle when they are away from home. We all know that at the convenience stores and gas stations, people simply don't want to take their stuff home to the curbside to recycle it. So your program ought to hopefully include the opportunity to increase opportunities wherever you go, you ought to be able to recycle. Those are the basic things I would recommend we need to include that we have in our program.

Senator JEFFORDS. Mr. Boisson, I understand that the BEAR report found that the average cost of collecting containers in deposit States was a little higher in those deposit States than the non-deposit States. The report also found that deposit States recovered containers per capita roughly two and a half times more than the non-deposit States. It seems that the deposit program delivers more bang for the buck at very low cost. Is this an accurate assessment? Can you elaborate?

Mr. BOISSON. Thank you, Mr. Chairman. I think there are different ways of looking at it. The numbers you cite are in fact accurate, based on our report. The per capita recovery in deposit States, which includes both the deposit program and other programs operating in the State, again, they operate in tandem, was about 490 containers per capita at a cost of about 1.53 cents per container, combined for this program. And in non-deposit States it was 191 containers per capita versus 490, and the cost was 1.25 cents on average typical costs. So there's about a .25 cent per container difference with the deposit States costing that much more and as you say, yielding fairly significantly more containers.

I guess I'd like to make a couple more points about cost. Deposit systems vary tremendously in how they are structured and in things like how the unredeemed deposit funds are used, whether there's a handling fee, who pays it, who pays it to whom, that sort of thing.

But in stepping back and in the optimized deposit systems that I described, there is great opportunity to make the system as efficient as possible by learning from existing programs. So for example, if a national program would have a deposit cost of $4 billion, and indeed would have unreclaimed deposits in the amount of $4.8 billion, as Mr. Dietly said, those unredeemed deposit funds could offset that cost, resulting in a net cost of only $.8 billion to industry. And that certainly still sounds like a lot of money.

But if you take $.8 billion and you divide it by 192 billion containers, which in 1999 is what was generated, you get .4 cents per container generated. So I think you need to put things in perspective. And again, there are many different ways of looking at it. But to come back to your original question, there's no question that the deposit States do recover far more containers. They have a slightly increased cost. And again, they vary tremendously.

Senator JEFFORDS. Describe the BEAR findings on the environmental impacts of landfilling and generating 114 beverage containers annually.

Mr. BOISSON. Yes, again, thank you, Mr. Chairman. There are environmental benefits, I think, that are often described in terms of what we might call back end issues. And I think certainly about 10 years ago, when the recycling movement in municipalities and States really took off, this is what most people described. So they talked about the weight of the containers, and again, it's about 4.3 percent of the overall waste stream being disposed are beverage containers. And people talked about the need to save landfill space. We calculated that the beverage containers wasted in 1999 would have saved about 47 million cubic yards of landfill space.

They talked about a particular commodity's percentage of the recyclable waste stream, which would be somewhat more than 4.3 percent, certainly, because that's what our goal is. And then we also talk about things like roadside litter. I would just anecdotally, as someone who has lived in two deposit States, including Vermont, and someone who lives now in a non-deposit State, it's very clear that roadside litter is a very high percentage beverage containers. I see that daily.

But those are all back end issues that are very important. But I think in terms of environmental benefits, you really need to look at the upstream side of the equation. When you hold a beverage container in your hand, in particular an aluminum can, you really are looking at a footprint that extends far beyond that can. There is the mining of bauxite, which is often done in South America and other countries, the transportation, the processing, highly energy intensive.

When you add up all of that whole materials flow that is embodied in that beverage container, you get a much different picture. For example, aluminum cans are about 0.7 percent of the discarded waste stream, but they have an energy savings and a greenhouse gas savings that is at least three times as high per ton than any other material in the waste stream. That comes from EPA's greenhouse gas report.

The next highest components are paper, certain components of the paper stream. Plastic and glass, while having much less bene-

fits, still have a positive benefit. So increasing recycling of those materials will increase the benefits proportionally.

I want to make one other point, too, which I think is related to your question. We often talk about why are we talking about beverage containers, and hopefully I've just given some reasons that justify it. But even apart from that, to me 4 percent is a sizable chunk. We really need to go after the whole waste stream. We need to be comprehensive about it. And it's a question of approach. Beverage containers in my view are sort of an indicator species of recycling. They were one of the first types of materials to be targeted in municipal programs and in Government supported policies. They had amazing success, both through the deposit systems and through municipal programs. They peaked in recycling in the early 1990's, and as we've been discussing, and the reason for this hearing, they're in bad shape now, for all of the reasons that have been discussed.

So that causes folks in the recycling community a great deal of concern. Because if we're losing on beverage containers, what's next. And I'll leave it there.

Senator JEFFORDS. Mr. Dietly, you often represent the National Soft Drink Association, which has criticized deposit laws on the grounds that deposits take valuable aluminum revenue away from municipal curbside recycling programs. Opponents say that the most potential aluminum can revenues are not being stolen from curbside operators; instead, they are being lost to landfills. They cite a 12 point decline in the national aluminum can recycling rate during this same decade that American's access to curbside recycling tripled. They point to 28 percent increase in can wasting.

How do you explain this paradox?

Mr. DIETLY. I think there a couple of ways to explain that, Senator. One of the things that's critical to understanding and taking a little bit of the sheen off of the deposit legislation is to realize that concurrent with the lowering of the overall recycling rate has come the drop in redemption rates in deposit States. Consumers are simply finding that deposit laws are no longer addressing the needs that they have as consumers and providing convenient ways of recycling.

There are several States that track recycling rates in their deposit programs. Each of those States is currently showing record low levels of recovery of beverage containers. A lot of the decline that you've seen has come through reductions in what's being returned under the deposit States.

But I think it's important to realize that the beverage containers being in bad shape, as Mr. Boisson said, is a relative thing. Beverage containers are still America's most recycled package. They are highly recycled and highly recyclable. This package is not exactly the worst performer in terms of environmental attributes. Aluminum cans, for example, and plastic containers have been significantly lightweighted, providing source reduction benefits and providing a lot more product to consumers for a lot less packaging waste over the last 30 years.

Beverage packaging is also recoverable and highly recognizable as recoverable in a number of programs. I think it's critical that these indicator species, if you will, of recycling, be given the oppor-

tunity to lead and to support the comprehensive programs that are out there. If you take beverage containers out of the recycling stream, you get circumstances like you have seen in New York City where a lot of the material that's left is not as valuable a material, and along with one of the previous witnesses, I question some of the rationale of what's going on in New York City right now as to dropping the collection of glass and plastic. I think it's pretty clear that if beverage container material were in the waste stream in New York City, it would not be as easy a decision to drop the collection, because there would be more valuable commodities in that waste stream than there are now.

Senator JEFFORDS. The beverage industry often says bottle bills rob aluminum revenue from city curbside programs. Yet aluminum can manufacturers themselves operate recycling buy-back centers which buy cans from consumers for cash. Do these industry-run centers also take revenue away from curbside programs? If so, why hasn't the beverage industry criticized them?

Mr. DIETLY. Well, it used to be that buy-backs, prior to the advent of curbside and municipal recycling programs, provided the sole infrastructure for recovering aluminum. That infrastructure existed and was the primary way that the companies got back the valuable materials. To a large extent, first of all, deposit bills eliminated altogether the buy-back operations or in the case of California, co-opted them into the redemption system. But curbside as well has drawn significant amounts of material away from the buy-back centers. Given the lightweighting of aluminum containers, the fact that you need to bring more and more and more in to get a pound of material, which is a good thing from an environmental standpoint, may not be as good a thing from the perspective of supporting a buy-back center.

So frankly, what's happened is the material has followed the drive for convenience and the motivation for consumer convenience. If the material can be more conveniently and appropriately recycled at the home or in municipal programs, I think that's where it's gone. So the success and the pervasiveness of those buy-back centers has declined significantly. There are really very few of them left.

Senator JEFFORDS. We have seen a tremendous explosion in the sale of plastic bottles. These are very expensive for curbside operators to collect, due to their high volume to weight ratio. The scrap value for PET is comparatively low. So they seem to be a losing proposition if collected. The situation is even worse for glass. Yet curbside operators are forced to pay to collect these in States without deposits.

Why would taxpayers pay for expensive programs to collect these items instead of the industries who profit from the sale of the throwaway containers?

Mr. DIETLY. It's the $64,000 question today, isn't it?

I think it's very important to realize a couple of things about the question. First of all, container recycling, and all recycling, is inherently an expensive undertaking. You're handling materials and commodities individually, collecting them from literally millions of separate locations, trying to consolidate them and trying to manage them in an efficient and effective way. Simply pointing out the fact

that it's expensive to recycle glass and PET through a curbside program doesn't diminish the fact that trying to collect them through a deposit program is also very expensive. Any way in which you choose to handle these materials individually by themselves, especially if you isolate certain types of them, only these PET bottles, only these glass bottles, only these aluminum cans, only these steel cans, only these cardboard cartons are going to have deposits and the rest don't.

You bifurcate the system. You tell consumers that you can't recycle everything all one way. We're not going to make it simple for you, we're going to make it hard for you. You've got to take this stuff and put it here, and take it back to get your dime, and you've got to take this stuff and we still want you to put it out at the curb.

I think there's no question that recycling is an expensive undertaking. The public demands recycling and there are underlying, good economic reasons why recovery of this material is justified. The point is that it should be done as efficiently as possible. The fact that it's costly doesn't mean we shouldn't do it. The fact that it is costly means we should find the most efficient ways of recycling. In our view, recycling through a deposit system is not the most efficient way of collecting the material.

Senator JEFFORDS. Senator Carper.

Senator CARPER. About 20 years ago, in my State, our Delaware Solid Waste Authority, which is responsible for overseeing the collection of waste throughout the State, invested a fair amount of money in a central processing system in northern Delaware where large building trucks would come in with refuse, literally just drop it out on the floor, and bulldozers would push it onto conveyor belts, and it would go through a processing system, a sorting system. Fairly sophisticated. And it would separate the glass and the plastic and the paper products and the aluminum and so forth.

They continued to have problems, a couple of decades ago, keeping it working. The price for the products that they came up with was, as was said earlier, volatile and in many cases low. Ultimately they gave up on that process. We have a lot of igloos around the State where we collect, people voluntarily drop off their recyclables. They can be in schools or shopping centers or park and rides or State parks, a variety of places. And some people do, most people don't take advantage of that. A good deal of the refuse that is collected now by Delaware State Solid Waste Authority goes to southeastern Pennsylvania to a trash to energy facility where it's burned.

I want to ask you about, I must say, I was always intrigued by the idea that trash could be brought in from throughout our State to this one central processing State, and through the wonders of technology, we could separate the different waste into streams and sell it. The technology that we had then was a generation old. My guess is that there are some places around the world or some places around the country where some municipalities are operating a modern facility and doing it well, and doing it a lot more efficiently and effectively than we ever did in my State.

Can you share with us any success stories where this might be happening?

Mr. YOUNG. In California, the need for minimum recycled content in bottles has helped to persuade different refuse people to start to sort the glass. Now, in order to reduce the cost of handling all these different materials and to make it easier for consumers, much of the State has gone to what's known as a single bin system. People take all the materials that are recyclable and put them in a single bin.

The problem you have when you do that though——

Senator CARPER. Where are the single bins?

Mr. YOUNG. The single bins are on the curbside. People who are at home put their paper, their glass and aluminum. The problem is that the glass is easily crushable, so it becomes very finite, and it becomes hard to sort by color and type. What waste management has done, with the Gallo Corporation, is develop a new system that's a laser sorting system. It uses lasers and optically sorts the glass by color and type. That's a new system, there's a lot of bugs in it, they're still working on it. But that's the type of new advance.

One has to question, ultimately, which is ultimately easier, if you spend all this high tech money to sort the end or are consumers willing to simply say, OK, I have two different kinds of bottles, or I have a bottle and I have an aluminum can, and I have a plastic bottle, glass, plastic, and aluminum, is that an easier way.

The handling of the material, it's easier to have a single bin. It's a quandary that we're in, but that's a new technology that's being implemented right now.

Senator CARPER. Mr. Boisson.

Mr. BOISSON. Just to add a little bit to that, there have been a couple of stories recently about the move toward single stream or single bin that Darryl refers to. There is a definite trend in that direction in municipal programs. And it does have a devastating impact on glass recovery and on paper recovery, as I'm sure the gentleman from the previous panel would agree. Broken glass contaminates paper streams and decreases its value, and the broken, mixed color glass, unless there is a very, there may be potential for technologies to overcome this, but I don't think it's widespread at this point. So there is a movement among municipalities that are using single stream to drop glass from the program or to cut it back and curtail it, perhaps bring it to a drop-offsite or something like that.

So I think it just brings up the point again that this is a system we're looking at, there are different ways to get at the different components. And it's worthwhile to look at what mix of different recovery schemes will work best. That should be the perspective we're looking at. But it's another contributing factor to declining recycling rates for beverage containers in particular.

Senator CARPER. Mr. Dietly.

Mr. DIETLY. One of the things you see with single stream collection is it's simply the swinging of the pendulum. At one point it was considered state-of-the-art to have everything sorted at the curb, and communities were willing to spend significant amounts on the collection side of the cost equation having trucks that had multiple bins in the back of them and the drivers literally on the routes were sorting stuff so that it would go right from the bins on

the trucks right to the processing facility and would need no further sorting.

The pendulum has now swung to assuming that one way of getting more participation and greater recovery of materials is to simplify the whole collection end for consumers, don't make them do the separation, give them one 96 gallon toter or something like that into which they can put everything. Then we'll spend more on the processing end, because then we're getting more material into the system on the front end and we're transferring some costs from the collection side over to the processing side. I agree with that, it's just a question of which system is appropriate.

Something I would point out particularly for the Delaware example is that in order to make a process like that viable and practical, you do need high volumes. A drop-off program, even statewide for Delaware, is not achieving the kinds of volumes that Delaware should be recovering. There should be curbside programs in Delaware. Whether it would be a Delaware specific facility or tying into the capacity that already exists around Philadelphia for processing, better to cooperate in a larger facility and achieve the economies of scale and processing than necessarily have a Delaware specific program.

Mr. YOUNG. There is also, I forgot to mention, a downside to the larger bin. It's nothing against larger bins, but my parents, who are somewhat old, are scared of a giant bin that they have to fill up. They're afraid it's going to tip over if they move out there. So there's been a great deal of confusion and a great deal of work. There are recyclers and municipalities that are working to get people comfortable, because they've been so used to sorting . The ultimate debate is, if you have a single bin system, will you get more materials and therefore offset the downside of having a single bin system.

Senator CARPER. In the city of Wilmington, where my family and I live, trash is collected twice a week in our neighborhood, Mondays and Thursdays. We have no curbside recycling. There are a couple of recycling centers where we can drop stuff off within less than a mile of our neighborhood. Some do, some don't. My family actually uses a commercial company which comes and picks up our recyclables, we pay them to do that.

I have sometimes thought, for example, looking for ways to harness market forces and people's interest in holding down their out of pocket expenses, if you say to a family, if you voluntarily sort your recyclables to some considerable extent you pay less for your collection. And maybe you would get better service, you would get pickups twice a week instead of once a week. Have you seen any experience with that sort of thing?

Mr. YOUNG. In California, we have a requirement that municipalities have to reduce their solid waste generation by 50 percent. So what's been happening is local municipalities have been incentivizing this by saying, if you can reduce the number of garbage cans you have and recycle more, we will charge you less. That's been done on a municipality by municipality basis.

Mr. BOISSON. I would just add, too, what you're speaking of is often referred to pay as you throw, that's sort of the buzz word used for it. And there has been a huge trend in that direction na-

tionwide, I forget the exact number, but it's several thousand municipalities, I believe, have adopted pay as you throw pricing systems that do provide the incentive you speak of.

Senator CARPER. How are they working?

Mr. BOISSON. I think they work well. They are usually implemented in conjunction with a new recycling program or something that will ensure there are opportunities for the household to recycle. And you see an immediate blip in the amount of recycled materials collected.

I do want to just highlight, though, that if we're talking beverage containers, as I tried to make clear in my presentation, pay as you throw is an excellent program. It makes sense. It should be adopted far more widely. But again, for many reasons, municipal collection programs really aren't in a position to solve the beverage container problem alone, because of the trend toward away from home consumption primarily. But also because the infrastructure is fairly limited, participation rates are fairly limited and what it takes to get people to participate and to get new programs out there is difficult.

Senator CARPER. Mr. Chairman, I'd like to ask each of the witnesses the same final question, if I may.

Senator JEFFORDS. You certainly may.

Senator CARPER. I'm no longer Governor, I'm a Senator. Although I still think like a Governor most of the time. But putting on my Federal legislator hat and trying to think of what is the appropriate role for us here in the U.S. Senate to try to encourage recycling efforts around the country, Mr. Young, just give me in 30 seconds what you make as our priority as Federal legislation.

Mr. YOUNG. You need a system that can adapt to market forces. You need a system that provides as many opportunities for people to recycle everywhere they go.

Senator CARPER. Thank you.

Mr. BOISSON. I certainly would agree with that.

Senator CARPER. I've been wanting to call you Boisson all day. Is that the way it's supposed to be pronounced, Boisson?

Mr. BOISSON. I guess I would have to admit it is, yes.

Senator CARPER. Monsieur Boisson.

Mr. BOISSON. Oui.

[Laughter.]

Mr. BOISSON. I think I'm always surprised at the amount of agreement by different stakeholders on many of the aspects of this whole issue. Again, why recycling rates are declining, the broad elements of what is needed, financial incentive, a funding mechanism, away from home services, so on and so forth. The problem isn't what, it's how. And obviously there's much disagreement about that.

I think what we need is a fair, efficient and effective system that involves producers in the equation, because municipalities quite honestly have gone almost as far as they can, and done heroic efforts. So we need something.

As I mentioned earlier, I think the program outlined in S. 2220 deserves a good look, since so much of it is open, it's open in terms of how it could be administered. I realize the beverage industry is going to oppose it, and I think the best thing you could do is pro-

vide forums such as this, sort of utilize the convening power of the Government to bring the players together and keep this dialog going, a dialog that we launched or at least brought forward to some degree in the MSRP I described earlier. So that's one thing.

Second, there are a few specific programs that have been highly successful and honestly did not cost very much money. I'm thinking of the Jobster Recycling program that EPA handled for many years. It was a grants program to the States and others for market development. For a very tiny Federal investment, it resulted in a huge network of trained professionals in all the States who understand the issues and are working cooperatively with businesses. It was a real smart investment.

I think just more broadly than that, other types of financial incentives and support is critical.

Senator CARPER. Thank you. Mr. Dietly.

Mr. DIETLY. Senator Carper, I guess I would counsel from the perspective of the Federal role some caution in not treading too heavily on issues that are traditionally and logically dealt with at the local level. There are significant tensions between just local, county and State level authorities, where States try to over reach and make declarations to locals about what they should do in the area of waste policy.

This is such a local issue because the economics of waste management, waste collection, of alternatives of markets are all site-specific. It becomes very difficult for the Federal Government to insert itself too directly into the operational components of this. Even though S. 2220 argues that the Federal Government would step back and let the manufacturers create the system, I think it's dangerous to be at the Federal level meddling in systems that have evolved in response to, and are funded by, local individuals and taxpayers. Taxpayers have created the recycling systems they want and presumably are willing to pay for the kinds of systems they have at home.

There is a need to keep up the energy that was once was devoted to recycling in the early 1990's and mid 1990's when curbside was young and recycling was a big issue that was in front of people all the time. Keeping awareness up, an issue that Mr. Young is dealing with in California, is a constant battle. In response to things like increased away from home consumption, I think that the industry, as well as governing organizations, need to respond to where the problem is. If the issues are away from home, let's address getting consumers to behave the way we want away from home. I don't think that creating a deposit system is going to be any greater solution to the away from home problem than a curbside program is, because if you're not going to recycle a container when you're away from home, you're probably not going to shlep it around for a dime, either.

So I think there's plenty to be done, and a lot of it from the Federal level, I would argue, would be in the area of awareness, and leave recycling opportunities and program design and logistics to the locals.

Senator CARPER. Our thanks to each of you. Mr. Chairman, thank you for holding this hearing.

Senator JEFFORDS. Thank you very much. I think I may have a few more questions to submit to you for the record. But I just want to thank you very much for extremely helpful testimony and helping us understand the problem.

Thank you, and thank you, Senator Carper, for very excellent participation.

[Whereupon, at 11:35 a.m., the committee was adjourned, to reconvene at the call of the chair.]

[Additional statements submitted for the record follow:]

STATEMENT OF DEBRA YAP, DIRECTOR, ENVIRONMENTAL STRATEGIES AND SAFETY DIVISION, OFFICE OF BUSINESS OPERATIONS, PUBLIC BUILDINGS SERVICE, GENERAL SERVICES ADMINISTRATION

Mr. Chairman and Members of the committee, I am Debra Yap, Director of the Environmental Strategies and Safety Division in the General Services Administration's (GSA's) Public Buildings Service. I appreciate the opportunity to discuss what the Federal Government is doing to ensure the Federal procurement of recycled-content products, and what can be done to improve these efforts. With me is Matthew Urnezis from the Federal Supply Service, Pacific Rim Region.

Section 6002 of the Resource Conservation and Recovery Act (RCRA) established the Federal buy-recycled program. Executive Order (EO) 13101, "Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition" expands, strengthens, and promotes the Federal Government's commitment to recycling, waste prevention and the acquisition of recycled content items, and environmentally preferable products, including biobased. The Environmental Protection Agency (EPA) designates products that should be purchased with recycled content. EPA identifies the products in the Comprehensive Procurement Guidelines (CPG) and provides recommendations for purchasing the products in Recovered Materials Advisory Notices (RMANs). The recommendations primarily pertain to the levels of recycled materials that the designated products should contain. For the purposes of this discussion, I will refer to products that meet the RMAN recommendations as CPG-compliant products.

Executive Order 13101 also established the Federal Environmental Executive who oversees implementation of Federal purchase of these products. Each year, the top six agencies, in terms of Federal procurement expenditures, are required to report CPG purchases to the Office of the Federal Environmental Executive (OFEE) and the Office of Federal Procurement Policy (OFPP). The Department of Defense, Department of Energy, National Aeronautics and Space Administration, Department of Veterans Affairs, Department of Transportation, and the General Services Administration were the agencies reporting in the March 2002 report on implementation for Fiscal Years 1998 and 1999. These agencies account for more than 85 percent of total Federal procurement expenditures. Final numbers for 1999 indicate that of the $774 million spent on EPA designated products, $492 million, or 64 percent, was spent on CPG-compliant products.

Environmental stewardship is the responsibility of each Federal agency and GSA takes this role seriously. This commitment is reflected in our strategic plan, performance measures, and our active Affirmative Procurement Program. GSA has the mission of helping other Federal agencies better serve the public by offering, at best value, superior workplaces, expert solutions, acquisition services, and management policies. I would like to relate to you how GSA has attempted to leverage its unique mission to promote the Federal procurement of recycled-content products. We have sought to encourage and promote environmental stewardship both internally and governmentwide and have relied on our relationships with the Office of the Federal Environmental Executive (OFEE), the White House Task Force on Waste Prevention and Recycling, and the Office of Federal Procurement Policy (OFPP). While I will discuss the efforts of the GSA's Public Buildings Service (PBS), Federal Supply Service (FSS), and the Office of Governmentwide Policy (OGP) separately, our efforts have been a coordinated response to promote Federal procurement of recycled-content products.

The Public Buildings Service (PBS)

The PBS mission is to deliver a superior workplace to the Federal worker and at the same time superior value to the American taxpayer. As the largest commercial-style real estate organization in the Nation, PBS provides workspace for a million Federal employees nationwide, and real estate and related services to more than

100 Federal organizations. It controls approximately 40 percent of the Federal Government's office space. PBS constructs, leases, manages, maintains, and protects office buildings, Federal court-houses, border stations, laboratories, data processing centers, warehouses, and child care centers. We consider three options to meet our client agency requirements for quality work environments: construction and acquisition of new facilities; repair and alteration of existing facilities; or leasing space from the private sector. Leveraging our role as the Federal Government's landlord, PBS was able to integrate provisions into its leasing agreements for energy efficiency and sustainable design. Included is a mandatory provision addressing recycled-content products referencing the Resource Conservation and Recovery Act, Section 6002, and the EPA's CPG program. In its role as a Property Manager for Federal buildings, PBS includes a clause requiring the use of recycled-content tissue paper in its janitorial services contracts. But PBS also provides design, acquisition, and construction of major Federal capital projects such as courthouses. The Design Excellence Program Guide includes evaluation of an architect/engineer's experience in energy conservation, pollution prevention, waste reduction, and the use of recovered materials as selection criteria. PBS has also formally incorporated the principles of sustainable design into its Facilities Standards for its building projects. This includes encouraging the use of recycled-content products and a list of the construction products from EPA's Comprehensive Procurement Guidelines. My division and the GSA Environmental Executive continue to work closely with the Federal Environmental Executive, John Howard, and the White House Task Force on Waste Prevention and Recycling to ensure we are maximizing opportunities within PBS to promote the use of recycled-content products.

Federal Supply Service (FSS)

The Federal Supply Service (FSS) leverages the purchasing power of the Federal Government to provide Federal agencies with best value in commercial products and services. FSS programs provide customers with economical, efficient and effective service delivery, saving agencies time and administrative costs.

Through their supply system, FSS provides customers with access to more than 4 million professional services and commercial products. The business of FSS is entirely dependent on customer revenues. Because its services are non-mandatory, FSS must strive to maintain customer loyalty.

To assist customer agencies in their efforts to purchase recycled-content products, FSS has developed a number of useful tools. The Environmental Products and Services Guide, available at fss.gsa.gov/enviro, identifies CPG-compliant products using a "CPG" icon. It should be noted that this icon was homegrown as there is no standard logo or labeling practice. GSA developed the icon to make it easier, faster, and less costly for customer agencies to identify CPG-compliant products. This guide also provides the amount of recycled content in the product. Additionally, GSA's Customer Supply Catalog identifies environmental attributes to include the specific percentage of recycled content.

The FSS website I just referenced also contains a wealth of environmental information, including applicable laws, regulations, Executive orders, and links to other agency sites. The CPG items are identified and a person using the site can click on a specific item and be connected to GSA Advantage! or the Schedules E-Library.

Using its online ordering system known as GSA Advantage!, FSS assists agencies looking for CPG-compliant products by adding a "CPG" icon to identify stock and special order items that are compliant. Stock and special order items include a wide range of paper products, including such items as copier and other office use paper, folders, binders, envelopes, boxes, containers and other packing materials, and a variety of kitchen and breakroom supplies. Some of the non-paper items include desktop accessories, pens, pencils, binders, award plaques, carpeting and even paint. Working together, FSS, the GSA Environmental Executive, and the GSA Office of Governmentwide Policy, Office of Acquisition Policy, developed a clause change that will require new and renewing schedule holders to not only identify recycled-content products, but also CPG-compliant products at proposal submission. This rulemaking is nearing final publication in the Federal Register at this time. Once implemented, this will greatly facilitate an agency's search for CPG-compliant products.

Finally, FSS has been instrumental for the yearly report to OFEE and OFPP by reporting expenditures for other agencies that order certain products through FSS, most notably, CPG-compliant copier paper.

The Office of Governmentwide Policy (OGP)

GSA's Office of Governmentwide Policy (OGP) is responsible for carrying out the policy and regulatory functions assigned to GSA by Congress, and exercises GSA's authority as one of the central management agencies of the Federal Government.

OGP brings interagency groups together to collaborate on developing the policies and guidelines for the implementation of Federal laws, executive orders and other executive branch guidance. Under OGP, the Office of Acquisition Policy develops regulations and policies for the Federal acquisition community that enable them to acquire goods and services at best value. Along with NASA and DoD, the GSA Senior Procurement Executive is one of three signatories to the Federal Acquisition Regulation (FAR) and sits on the FAR Council as well. The Office of Acquisition Policy chairs the Civilian Agency Acquisition Council (CAAC) that allows for interagency collaboration on acquisition regulations. Together with NASA, DoD, and the CAAC, the Office of Acquisition Policy has developed regulatory guidance that specifically address requirements for and purchasing of recycled-content products from the earliest stages of requirements analysis, market research, and acquisition planning, through source selection and contract administration. A FAR solicitation provision and contract clause were added to inform suppliers of products and services alike of their responsibility to use recycled-content products, specifically, those that are CPG-compliant. The Office of Acquisition Policy also works closely with the Office of Federal Environmental Executive, the White House Task Force on Waste Prevention and Recycling, and OFPP to refine the coverage in the FAR and is, in fact, working on some refinements through a rulemaking at this time.

This office also plays another important role that helps to close the circle on GSA's coordinated approach to promoting Federal procurement of recycled-content products. GSA, under OFPP direction, manages the Federal Procurement Data System (FPDS). FPDS captures contract award information for the entire Federal Government on awards over $25,000.00. GSA also chairs the interagency working group that develops new data elements for tracking new requirements for OFPP approval. In October 2001, the committee developed a new data element capturing information on CPG-compliant contracts. A reporting subgroup of the White House Task Force on Waste Prevention and Recycling has been working to refine the new data element with the purpose of easing manual Resource Conservation and Recovery Act (RCRA) reporting by agencies and to provide a basis for measuring CPG-compliant purchasing. GSA will participate with the Task Force in these subgroup meetings.

Opportunities for Improvement

Reporting and measuring continue to challenge this program governmentwide. While we applaud efforts to refine the FPDS data element, dollar or volume amounts of individual CPG items within an individual contract cannot be captured. Also, it is important to understand that purchases under $25,000.00 are not required to be reported through FPDS. The reporting subgroup of the White House Task Force on Recycling and Waste Prevention continues to address these reporting challenges and make recommendations for improvement. The Task Force and GSA will continue to work with agencies to stress the importance of agencies' commitment to environmental stewardship through acquisition planning, contract development and aggressive Affirmative Procurement Programs. GSA's Environmental Executive and Senior Procurement Executive have partnered to maintain the momentum of the GSA Affirmative Procurement Program and to monitor its progress.

While some interesting research is being conducted regarding the tracking of credit card purchases, we do not currently have the ability to do this. Compounding the credit card challenge, is that a card holder cannot identify CPG-compliant products at retail establishments as there is no program for labeling products under this program. Without such a labeling program, we must focus our attention on education for credit card purchasers and making it easy to purchase CPG-compliant products. GSA is trying to help through its continuing efforts to identify compliant products through FSS. We believe that a periodic review of the EPA list of CPG items would help to ensure that suppliers of such products are available and responsive and new entrants into the market are included on the supplier lists. We understand that EPA is reviewing their supplier list and we recommend that this be done periodically.

We must be vigilant regarding our education and guidance and this should include the contractor community. Without a labeling program, suppliers need to understand how to accurately identify a product's environmental attributes.

In closing, I would like to offer a copy of an electronic survey we used this year in our agency to identify strengths and weaknesses in our Affirmative Procurement Program. We will use the results of this survey as a basis for a plan of continuous improvement. Perhaps other agencies might find it useful and can modify it for their use. We will provide a copy of it to the Office of Federal Environmental Executive.

Mr. Chairman, this concludes my formal statement. We would be glad to answer any questions that you or Members of the committee may have about our efforts to promote Federal procurement of recycled-content products.

RESPONSES OF DEBORAH YAP TO ADDITIONAL QUESTIONS FROM SENATOR JEFFORDS

Question 1. GAO recommended that the Federal Environmental Executive and EPA, in conjunction with the major Federal procuring agencies, develop a process to (a) provide agencies with current information on the availability of recycled-content products and (b) better promote these products. Has this occurred? If not, why not?

Response. On its Comprehensive Procurement Guidelines web site, www.epa.gov/cpg, EPA provides lists of known manufacturers and vendors of the CPG-compliant products. Prior to this year, the lists were updated annually and, therefore, were often out of date. This year, EPA changed the lists to a new, dynamic listing that can be updated frequently. The agencies were invited to beta test the new listings this past spring, and EPA is completing the revised version this summer. The Federal Environmental Executive (FEE) will inform the agencies when the revised listing is available.

The FEE chairs an inter-agency Executive Order 13101 Interagency Advisory Group (EOIAG), which is comprised of representatives from 30 agencies. The EOIAG meets monthly. Information on recycled content products is shared during these monthly meetings. The FEE also provides information through the quarterly Closing the Circle News. In addition, the FEE's web site, www.ofee.gov, provides information on sources of re-refined oil and 30 percent postconsumer recycled content paper.

The General Services Administration (GSA) and the Defense Logistics Agency (DLA) also have a role in providing information through the use of icons in their electronic catalogs. As noted during Ms. Yap's testimony, GSA has already identified EPA-designated recycled content products that contain a percentage of recycled content within EPA's recommendations in their supply (stock and special order) program. These products are highlighted with a "CPG" icon in both the on-line ordering system, GSA Advantage! as well as the electronic and print versions of the Environmental Products and Services Guide (which has been enclosed as background materials). The catalog is also available on-line at http://www.fss.gsa.gov/enviro. Also, as noted in Ms. Yap's testimony, GSA has already received public comments on a proposed rulemaking and will soon be issuing a final rule that will require Federal Supply Schedule vendors to clearly identify whether their products are CPG-compliant. This clarifies the current requirement that requires contractors to identify other environmental attributes, including products containing recovered material to include those identified in EPA procurement guidelines. This clarification will allow GSA to identify these offerings, which are outside of the supply program, with the "CPG" icon.

Question 2. GAO recommended that OMB provide the agencies with better guidance on how to review and monitor the effectiveness of their procurement programs. Have you received such guidance?

Response. The Office of Federal Procurement Policy (OFPP) and the White House Task Force on Waste Prevention and Recycling (the Task Force) co-chair an interagency reporting workgroup, which is recommending methods to streamline and improve Resource Conservation and Recovery Act (RCRA) reporting. GSA is a member of this workgroup. The workgroup recently recommended further streamlining of RCRA reporting for fiscal year 1902 and 1903, including a recommendation that agencies audit their affirmative procurement programs. The committee recommended questions to be asked during the audit process. These recommendations were approved by the E.O. 13101 Steering Committee—James Connaughton, Chair of the Council on Environmental Quality, Angela Styles, OFPP Administrator, and John Howard, the FEE.

Question 3. GAO recommended that OMB, in conjunction with Federal agencies amend the "common rule" to ensure that grantees purchase recycled-content products as required by RCRA. Are you aware of any such action or timeframe for such action to occur?

Response. GSA does not have a grants program and, therefore, cannot respond to this question.

Question 4. As I understand it, the new data field included in the Federal Procurement Data System will provide information on these types of purchases made only by contractors and not agency purchases themselves, Federal procurement card purchases, and grantee purchases. Is this correct? And if so, what additional steps could be taken to capture purchase data from the other sources?

Response. The Reporting Workgroup co-chaired by OFPP and the Task Force recommended actions to address record keeping and reporting on purchases through contracts, credit cards, and grantees. The change to the FPDS will capture data on

purchases of EPA-designated products made through contracts in excess of $25,000. While it will not identify the specific products purchased, it will provide an indication of compliance with RCRA. Agencies will be able to use this data to look for patterns of non-compliance and provide education, training, and oversight to correct the noncompliance.

FPDS does not track purchases made by contractors. As noted, it collects information on agency purchases awarded by contract in excess of $25,000. As a result, FPDS does not capture purchases made with credit cards under this dollar value or on grants of any dollar value. While collecting information on credit card purchases of these items can be done if the purchaser uses GSA Advantage!, there is no governmentwide management information system for information collection of purchases made outside of this system. Even if a reporting requirement for credit card purchasers were established, the resulting reports would not be satisfying. Without a labeling requirement for the commercial sector, credit card holders are unable to reliably identify compliant products at retail establishments and other sources outside of the GSA and DLA programs described above that identify compliant products.

The Reporting Workgroup recommended a credit card pilot to determine whether the credit card companies can report purchases of EPA-designated products. In essence, reporting would require the merging of vendors' inventory and billing systems. While this is possible to do, the agencies want to determine whether both large and small vendors will be able to provide the data.

There currently is no requirement for grantees to report to agencies on their purchases of EPA-designated products using Federal funds.

Question 5. OFPP and the Task Force committed to Congress that the Federal Government would develop electronic tracking systems so we could report on purchases of CPG items. This led to changes to the Federal Procurement Data System, which are being implemented for the first time this fiscal year. Data originates with the SF 279, which contracting officers complete for each contracting action greater than $25,000. The FPDS guidance manual has the new version of the SF 279, but as of last month, if you went to GSA's on-line forms, the 2000 version of the SF 279 was still posted. We have twice requested, via OMB, that GSA post the correct version of the form. What are they waiting for? Why can't they post the correct version? What are they doing to inform agencies about all of the changes to the SF 279, including the change to capture data on purchases of CPG items?

Response. Thank you, Senator Jeffords, for bringing this problem to the attention of the GSA Office of Governmentwide Policy (OGP). The SF 279 at the on-line forms library, has been updated to reflect the latest version of the form at the Federal Procurement Data Center (FPDC) site and in their guidance manual. FPDC has worked out a process to ensure the latest form will always be displayed in the on-line forms library. Because most agencies use other means of obtaining updates on FPDS and inputting information to FPDS, such as FPDS agency coordinators and agency-unique feeder systems, the interagency FPDS committee, chaired by OGP, submits proposed amendments to each agency for comment before changes are made final. This allows agencies advance notice of changes so they can begin programming their electronic procurement systems or feeder systems in advance of the change being formally issued. The committee, working with its OMB FPDS manager, reviews any comments, makes appropriate changes and issues the final amendment. The current data element designed to capture compliance information on the purchase of EPA-designated products includes extensive explanation that amounts to a quick education on the subject to assist contracting officers. OMB and the committee felt that this explanation was necessary to fill in any knowledge gaps in this area among agency contracting officers. The Reporting Workgroup developed further guidance this year. OFPP and the FPDS interagency committee included this guidance in Amendment 8 of FPDS and it is out for agency comment now. Agency coordinators will ensure appropriate distribution of this guidance throughout their agencies and it will appear at the FPDC webs ite as well.

Question 6. Why did GSA continue selling virgin paper long after the Executive Order mandated that all Federal purchasers buy paper containing at least 30 percent post-consumer content?

Response. We have had copier paper items in our supply system for many years. The National Stock Numbers (NSN5) date prior to 1974. We introduced recycled content copier paper items into our supply system long before they were required by the Executive Order. While initially the marketplace didn't have the capacity to absorb the potential Federal demand for recycled-content paper, industry geared up in anticipation. In an attempt to help realize this potential Federal demand, FSS reduced the price of the recycled paper to be "five cents" ($.05) less than the non-

recycled paper that we had in our supply inventory to eliminate the higher "traditional" cost for recycled paper. Based on this action, DOD and a number of other agencies authorized GSA to automatically change any requirements for noncompliant items to the compliant items. This resulted in a significant increase in the purchase and use of recycled content copier paper.

Executive Order 13101, signed September 14, 1998, included the requirement to purchase 30 percent post-consumer content paper and paper products on December 31, 1998. We expediently revised our specifications, technical purchase descriptions, and contracts to include the required minimum recovered materials content level for paper. We modified our copier paper contract for the 75Xl supply schedule to increase the minimum content level from 20 percent to 30 percent effective February 5, 1999. We also modified our NIB/NISH agreements to require a minimum of 30 percent post-consumer material content effective January 1, 1999. We continued selling other than 30 percent post-consumer content paper simply to deplete what was already in stock.

Question 7. Is GSA looking at environmental attributes other than recycled-content and energy-efficiency?

Response. Yes. We have introduced an array of environmental products and services into our supply system. Products that have recycled-content and energy-efficiency attributes capture the attention of our customers because environmental laws (RCRA and EPACT respectively), FAR regulations (Parts, 7, 10, 11, 15, 23, 42, and 52), Executive Orders and Memoranda, and agency affirmative procurement programs require Federal buyers to purchase these items. We contract for the recycled content and energy efficient items and highlight them in our printed publications (the Environmental Products and Services Guide, Supply Catalog, and Marketips) and online purchasing system GSA4dvantage!. We also highlight the following environmental attributes in our catalogs and our Environmental web site: reduced hazardous waste, non-toxicity, chromate free, chromium free, hexavalent-chromium free, lead free, mercury free, benzene free, low volatile organic chemical (VOC), as well as chlorofluorocarbon (CFC) free/non-ozone depleting substances. In GSA Advantage! we highlight non-toxicity, chromate free, hexavalent-chromium free, lead free, mercury free, benzene free, low volatile organic chemical (VOC), as well as chlorofluorocarbon (CFC) free/non-ozone depleting substances. In addition, we highlight environmental products that meet industry standards and test methods.

The GSA Affirmative Procurement Program (APP) gives a preference to CPG-compliant, environmentally preferable, and biobased products. We also have developed implementation plans for the APP in all 11 regions, and each of our three services and our staff offices. The GSA Federal Supply Service (FSS) and the Public Buildings Service (PBS) participated along with EPA in the Environmentally Preferable Products (EPP) pilot program for cleaning products. This became the prototype for EPA's EPP Pilot program. Additionally, as noted in Ms. Yap's testimony, PBS has incorporated specific guidance throughout the Green Buildings Program to include their facilities standard (P100), the Design Excellence Program, and the evaluation criteria for prospective Architect/Engineer contractors. To reiterate the written and oral testimony, the GSA and Department of Defense (DoD) FAR staffs, in coordination with the Civilian Agency Acquisition Council (CAAC), the Defense Acquisition Regulations Council (DARC), and OMB have revised the FAR to fully incorporate green purchasing guidance covering energy and water efficiency, recycled-content products, environmentally preferable products, hazardous materials, and others. Green purchasing is covered throughout the acquisition cycle in the FAR, from describing agency needs and market research, through contract administration.

Question 8. The GAO report concludes that agencies reviewed, and that would include GSA, told GAO that agencies are "often" not aware of EPA-designated recycled-content products, and "the agencies have made little effort to ensure that grantees are aware of their obligations to purchase recycled-content products." Has GSA identified any specific legislative needs that would address these problems?

Response. GSA does not administer grants. However, the Task Force has an ongoing education and training program to reach the Federal acquisition and grants communities. The Task Force has expressed an opinion that absent a revision to the "common rule," there is no assurance that Federal grants-administering agencies will revise their grants regulations or inform their State and local grantees of the requirement to purchase CPG-compliant products.

Executive Order 13101 required the head of each major agency to designate an Agency Environmental Executive (AEE) at the level of the Assistant Secretary or equivalent. The function of the AEE is to make sure that their agencies are in compliance with the E.O. 13101 directives, including the purchasing of CPG-compliant products. GSA's AEE, Paul Lynch, initiated a "roll out" campaign to re-invigorate

the EQ. 13101 and RCRA requirements. This campaign was a 360-degree effort that resulted in a number of meaningful improvements. The AEE worked with various GSA organizations and those in senior leadership to include the Office of Acquisition Policy, GSA's Senior Procurement Executive (SPE), David Drabkin, the Federal Supply Service (FSS), the Public Buildings Service (PBS) and its Environmental Strategies and Safety Division, and the Federal Procurement Data Center (FPDC). Many of these offices worked closely with OMB, the FEE, and the Task Force to improve on GSA's support of their efforts. This coordinated effort has resulted in the following improvements:

- FSS identification of CPG-compliant products in the supply program, supply catalogs, on-line ordering systems using a "CPG" icon.
- A campaign kickoff for the regional environmental coordinators hosted by the AEE in Washington, DC where the Office of Federal Environmental Executive (OFEE) spoke to their responsibilities. This resulted in each regional Head of Contracting Activity (HCA) developing formal APP Implementation Plans for their region. Implementation Plans were also developed for the central office services and staff offices.
- A year after developing the Implementation Plans, an electronic survey was created and administered to GSA environmental coordinators to identify the strengths and weaknesses of their implementation plans for the APP.
- Implementation of GAO recommendations for the current reporting element in FPDS. GSA was instrumental in writing the instructional language for this element in coordination with OMB.
- An active awards program.
- nationwide training completed on the requirements of the RCRA, E.0. 13101, and the GSA APP.

As noted in our written and oral testimony, however, we believe that the single most helpful way of increasing awareness would be through a comprehensive commercial labeling program similar to Energy Star. Part of the problem with identifying CPG-compliant products is that the purchaser has to know the specific EPA recommendations for each individual product as contained in the Recovered Material Advisory Notice (RMAN) prior to making the purchase. This is further complicated by the fact that the RMAN identifies both total recovered material content and post-consumer material content levels for some products, while others recommend simply total recovered material content percentages. This requires an understanding of these terms and research on the part of the purchaser. While this is a realistic expectation for a program manager developing specifications for a contract purchase or for a contracting officer, it is much less realistic for credit card purchasers ordering outside of the supply systems identified that highlight compliant products. This becomes exceedingly difficult when purchasers go to a retail establishment, for instance, where even if they had researched the content requirements for their purchases, the products are not identified as compliant.

Question 9. The GAO report (at 24) States, "Defense, the largest procuring agency, believes efforts to monitor and report on recycled-content product purchases conflict with the streamlining goals of procurement reform." Does GSA similarly believe these two areas are inherently in conflict?

Response. GSA does not believe the problem of developing more effective monitoring and reporting is one of inherent conflict with streamlining but there is a cost associated with it that is not minimal. This cost cannot be absorbed across government and it is not otherwise funded.

Question 10. As GAO observed (at 5), "Defense and GSA have a dual role—first, as procuring agencies subject to RCRA and Executive Order 13101 and second, as major suppliers of goods and services to other Federal agencies." Given this central role for GSA, would GSA provide as many specific examples as possible of instances in which specifications have been changed to "require the use of recovered materials to the maximum extent practicable", as directed by RCRA?

Response. Our records indicate that there were 133 Federal Product Descriptions (FPDs) that the Federal Supply Service (FSS) converted from a virgin materials requirement to a recovered materials requirement. As a result of a change in our buying practices, we have reduced the number of FPDs from 133 to 19 active FPDs that contain the recovered materials requirement. We have moved from a specification driven approach to acquiring products to a Multiple Award Schedules (MAS) commercial acquisition approach in support of the Federal Acquisition Streamlining Act (FASA) requirements and to better accommodate the buying practices of our Federal customers.

In addition, our specifications, Commercial Item Descriptions (CID's) and technical purchase descriptions which were developed or revised after Public Law 94–

580, as amended, include reference to use of recovered materials. These specifications, CID's and purchase descriptions cover a wide spectrum of products made with recovered materials. Our National Furniture Center offers many specific examples of instances where specifications have been changed to "require the use of recovered materials to the maximum extent practicable."

The National Furniture Center (NFC) developed specification requirements for the wood furniture needs of the Huntsville, Alabama, U.S. Army Corps of Engineers (COE) dormitory and quarters and for use in COE projects worldwide. In addition to inclusion of the "maximum extent practicable" language referenced above, the NFC expanded language to encourage products with other environmental attributes (a subject addressed in another of the Senator's questions). For example, where tropical hardwood is used, specifications require that the wood come from forests managed for sustainability. Written manufacturer's certification of sustainability is required from a recognized entity such as the Forest Stewardship Council.

A new Special Item Number (SIN) description was added to Multiple Award Schedule 72-I-A to accept only flooring products with recycled content. Initially, the description referred to carpet products only, but since, has been expanded to include the whole spectrum of flooring products (mats and matting, carpet cushion, linoleum, vinyl tile, etc.). Further, a reference has, been added to highlight the NFC's desire for suppliers to offer biobased products that we expect to have on contract in the near future.

Our General Products Center also has many specifications that have been changed to "require the use of recovered materials to the maximum extent practicable." All of the CPG-compliant National Stock Numbers (NSNs) managed by the General Products Center required a specification change or modification of some type. In some cases, the addition of the recycled content is contained solely within the item purchase description. For example, approximately 90 percent of our forms state:

> This form must be printed on recycled paper and must be printed with a recycle logo. The logo must be positioned on the page as not to interfere with the image or usage of the form."
>
> REGULATORY REQUIREMENTS. GSA is promoting the use of recovered materials in its contracts to the maximum extent practicable, provided all specification requirements are met. The offeror/contractor shall use recovered materials, in accordance with Section 505 of Executive Order 13101, dated September 14, 1998.

Additionally, our rolled, paper towel used in the fire program (NSN 8540–01–169–9010) contains the following language:

> The towels shall be 100 percent paper with 4010 100 percent recovered fiber and a minimum of 40 percent post-consumer recovered materials as specified by the EPA Guidelines For Federal Procurement of Paper and Paper Products Containing Recovered Materials (40 CFR 247) and the EPA Paper Products Recovered Materials Advisory Notice (Federal Register, Vol. 61, No. 104, May 29, 1996).

All of the repack boxes in the fire program are CPG-compliant and meet the following requirements:

> The boxes shall contain recovered materials in accordance with the EPA Comprehensive Procurement Guideline For Products Containing Recovered Materials (40 CFR 247). As a minimum, the boxes shall contain the recommended recovered fiber content levels as stated in the EPA Paper Products Recovered Materials Advisory Notice (Federal Register, Vol. 61, No. 104, May 29, 1996). For example, corrugated containers (less than 300 psi) are required to have recovered fiber content of 25–50 percent and contain postconsumer fiber of 25–50 percent. Corrugated containers (300 psi and greater) are required to have recovered fiber content of 25–30 percent and contain postconsumer fiber of 25–30 percent.

One final example would be the description for traffic cones (NSNs 9905–00–424–9829 & 9905–00–537–4997) containing the following:

> Traffic Markers (Cones), produced in plastic or crumb rubber, shall contain 50 to 100 percent recovered materials as specified by the EPA Comprehensive Guideline for Procurement of Products Containing Recovered Materials; Recovered Materials Advisory Notice Ill; Final Rule (40 CFR Part 47), Federal Register/Vol. 65, No. 12/Wednesday, January 19, 2000/Rules and Regulations.

Leveraging our role as the Federal Government's landlord, GSA's Public Buildings Service (PBS) was able to integrate provisions into its leasing agreements for energy efficiency and sustainable design. Included in the lease agreement is a mandatory provision addressing recycled-content products referencing the Resource Conservation and Recovery Act, Section 6002, and the EPA's CPG program. In its role as a Property Manager for Federal buildings, PBS includes a clause requiring the use

of recycled-content tissue paper in its janitorial services contracts. PBS also provides design, acquisition, and construction of major Federal capital projects such as courthouses. The Design Excellence Program Guide includes evaluation of an architect/engineer's experience in energy conservation, pollution prevention, waste reduction, and the use of recovered materials as part of the selection criteria. PBS has also formally incorporated the principles of sustainable design into its Facilities Standards for its building projects. This includes encouraging the use of recycled-content products and a list of the construction products from EPA's Comprehensive Procurement Guidelines. The PBS Environmental Strategies and Safety Division and the GSA Environmental Executive continue to work closely with the Federal Environmental Executive, John Howard, and the White House Task Force on Waste Prevention and Recycling to ensure we are maximizing opportunities within PBS to promote the use of recycled-content products.

We would also like to note that the GSA Affirmative Procurement Program contains the following regarding specifications:

12. Specification Control

a. The procurement originator is responsible for reviewing product performance specifications, product descriptions, and standards of EPA-designated CPG items during the acquisition planning stage. Specifications and standards regarding a CPG product line must relate to the performance of that product. Product specifications and standards that prevent the purchase of CPG items or "environmentally preferable" products must be revised or eliminated in the actual procurement specifications." b.

Question 11. According to the GAO report, information on the purchases of recycled-content products is largely unavailable. If agencies do not reliably track their purchases of these products, how can we be sure that they are being purchased? Why, after 25 years, can we still not know how much, or if, Federal agencies are purchasing recycled-content products?

Response. GSA is not in a position to answer this question for all agencies and for the entire program, however, we are certainly aware that reporting and measuring continue to challenge this program governmentwide. While we applaud efforts to refine the FPDS data element, dollar or volume amounts of individual EPA-designated products within an individual contract cannot be captured. Though a clause used in contracts over $100,000 requires contractors to report estimates at contract completion, obtaining these estimates yearly for the RCRA reporting would require levying a yearly reporting requirement on contractors and then a process and system for compiling this contract-specific information governmentwide.

The Reporting Workgroup of the White House Task Force on Recycling and Waste Prevention continues to address these reporting challenges and make recommendations for improvement. The new change to the FPDS implemented in October 2001, will allow agencies to capture, for the first time, compliance with Section 6002 of RCRA in purchases made through contracts. Because purchases made through contracting is significant, this will enable the agencies to report on large scale compliance. As noted above, the credit card pilot will determine whether agencies can receive data from vendors without unduly burdening the vendors.

GSA has taken a proactive role in identifying recycled content products to assist agencies in their efforts to purchase these products. The Environmental Products and Services Guide identified CPG-compliant products using a "CPG" icon. GSA developed the icon to make it easier, faster, and less costly for agencies to identify CPG-compliant products. GSA Advanfage', our online ordering system, uses the CPG icon to identify supply (stock and special order) items that are CPG-compliant. Multiple Award Schedule contractors are voluntarily identifying CPG-compliant items. And a soon-to-be published final rule that was already published for public comment, clarifies a requirement that GSA schedule vendors specifically identify CPG-compliant products. This will assist agencies in identifying and reporting on orders placed directly with the schedule vendor.

GSA has the capability to capture sales data on recycled-content products that we have in our supply system that have an assigned national stock number (NSN). We use NSNs to track and report sales data for recycled-content items that we order for our Federal customers. For example, GSA has been able to track purchases of CPGcompliant copier paper in our supply system; we have seen a demonstrated increase in the purchase of CPG-compliant copier paper since 1997. This summer, we will also capture sales data for multiple award schedule items acquired through the CPG icon on GSA Advantage!. Ultimately, sales data is provided to the OFEE for all of these types of purchases.

Question 12. What steps do you believe we should take to more effectively ensure that Federal agencies purchase recycled-content products?

Response. While GSA is trying to help agencies identify recycled-content products through the Federal Supply Service supply and schedules programs, GSA is not a mandatory source. We believe that all stakeholders, including the private sector, must continue to work toward making CPG-compliant products, regardless of where they are purchased, easy to identify. While GSA will be requiring schedule vendors to identify CPG-compliant products, we believe that at least a voluntary labeling program should be investigated. This would significantly facilitate identification of compliant products not only for Federal purchasers, but also for distributors of categories of products, only some of which might be compliant. Marking a product with a recycle logo is not sufficient to ensure we are purchasing CPG-compliant products. Without a labeling program, suppliers need to understand how to accurately identify a product's environmental attributes.

We believe that a periodic review of the EPA list of CPG items would help to ensure that suppliers of such products are available and responsive and new entrants into the market are included on the supplier lists. We applaud the EPA's recent efforts at reviewing their supplier lists and we recommend that this be done periodically. We would also recommend that these lists be prominently displayed at the EPA website so no "drilling down" into the site is required. This would make it easier for agencies to inform their purchasers where to find suppliers of compliant products.

We must be vigilant regarding education or we run the risk of losing the attention of acquisition personnel, both program managers and contracting officers, as new requirements for new programs constantly compete for their attention. This is why the GSA Agency Environmental Executive, Paul Lynch, and the GSA Senior Procurement Executive, David Drabkin, have partnered to maintain the momentum of the GSA Affirmative Procurement Program and to monitor its progress.

Question 13. GSA currently captures data on purchases from its supply centers. What about capturing data on recycled-content purchases from your supply catalogs? Can you estimate what percentage of total recycled-content purchases for Federal agencies this data represents?

Response. The data we capture on recycled-content purchases includes items that are published in our supply catalogs. Items listed in our supply catalogs have uniquely assigned National Stock Numbers (NSNs). We use NSNs to track and report sales data for recycled-content items.

We do not have the necessary information to estimate what percentage of total recycled-content purchases for Federal agencies this data represents. However, the OFEE receives sales data on recycled-content items from Federal agencies as part of the RCRA reporting efforts. Agencies are required to submit to OFEE the aggregate dollar amount spent on a designated item (virgin materials included) and total dollars spent on recycled-content items. The OFEE is in a better position to produce a valid estimate of the percentage of total recycled-content purchases for Federal agencies. It is important to note that we provide the OFEE with sales data—that includes items made with virgin materials and recycled materials—for items where we process the requisition and consummate purchase orders.

Question 14. In 1991, the Senate Governmental Affairs Committee held a hearing on Federal Procurement. GSA was asked whether schedules could reference other schedules that had green products. The answer given back then was yes. I understand that this has not been done. Why not?

Response. We are aware of the hearing and believe the reference was to the GSA Supply Catalog. The comments criticized our publishing of the GSA Supply Catalog without more prominent identification of green products. We took actions that ensured our next GSA Supply Catalog included a "green" dot that indicated that a particular product contained an environmental attribute. Over the years, the GSA Supply Catalog expanded the use of environmental designations. Currently, we use several commercially and federally recognized logo designations to convey the environmental attributes contained in products that are listed in our Supply Catalog to differentiate them from those products that are made with virgin materials. Also, we publish a very popular Environmental Products and Services Guide (EPSG) to further promote and facilitate the Federal acquisition of products that contain an array of environmental attributes.

In recent years, the FSS Environmental Programs web site (fss.gsa.gov/enviro) has emerged to be one of our most frequently used web sites. It contains a wealth of information that Federal buyers can use as a tool to locate the various environmental products and services that we offer, in addition to researching the environmental laws, the Federal Acquisition Regulation (FAR) Part 23, and Presidential Executive Orders that support the environmental products and services that we offer. The FSS Environmental Programs web site also facilitates the acquisition of

environmental products and services by establishing links to our on-line ordering system—GSA Advantage! (www.gsaAdvantage.gov) and our on-line schedule vendor information system—the Schedules e-Library (fss.gsa.gov/elibrary). We have also established links to relevant environmental web sites in the Federal Government including links to the Office of the Federal Environmental Executive (OFEE) web site, and the EPA Environmentally Preferable Purchasing (EPP) web site and the EPA Comprehensive Procurement Guideline (CPG) web site.

In addition, the use of the CPG icon is being expanded to include Multiple Award Schedule items. We plan to assist purchasers in the identification of CPG-compliant items when using GSA Advantage! by adding a new search feature that will allow the customer to identify and search for CPG items identified by the contractors.

Question 15. I have heard the suggestion that GSA add a pop-up banner at the beginning of a schedule to remind the purchaser to buy green and inform them that this particular schedule includes EPA-designated products. Why can't GSA do this to provide information to the customer?

Response. We do not publish schedules electronically. We believe that this question refers to GSA Advantage!, not a schedule. GSA Advantage! is our electronic on-line shopping and ordering system. It provides online access to several thousand contractors and millions of services and products.

GSA Advantage! will soon have a message on the GSA4dvantage! home page (www.gsaAdvantage.gov) that asks all buyers if they have considered environmental products and services. There will be a link to information on how GSA assists Federal customers with procurement responsibilities outlined in Federal environmental laws and regulations. In addition, we have instituted changes to GSA Advantage! that enable vendors to identify products in their catalogs as CPG-compliant. Also, a change will be made to the GSA Advantage! search subsystem shortly that will display a "CPG" icon next to products identified as CPG-compliant by vendors. The icons already appear for GSA supply items. When the change is instituted, users will be able to filter searches on "CPG-compliant" as they do now for NIB/NISH and other special interest items.

The FSS Environmental Programs web site also facilitates the acquisition of environmental products and services by establishing links to our on-line ordering system—GSA Advantage! (www.gsaAdvantage.gov) and our on-line schedule vendor information system—the Schedules e-Library (fss.gsa.gov/elibrary).

Question 16. GSA has a critical role to play in educating purchasers. The Federal Acquisition Institute is supposed to develop green purchasing training for the acquisition community. I understand the Institute began to develop an on-line training but it was never completed. Why not?

Response. Environmental purchasing guidance was being incorporated throughout the basic contracting course, CON 101, beginning with acquisition planning. However, before completion, it was determined that FAI would no longer develop course material covering broad subject areas such as CON 101. However, FAI has more recently partnered with other agencies and organizations to deliver "just-in-time" online seminars on focused topics. We believe that green purchasing could be covered in such a seminar. GSA has been in contact with the President of the Defense Acquisition University (DAU), General Frank Anderson, Ret, and would be pleased to open discussions with OFPP, OFEE, and DAU on how such a seminar might be developed and delivered to the Federal acquisition workforce. An additional option is the Lunchtime Learning Seminars jointly hosted by DAU and FAI. While these seminars are available just in the D.C. area, they can be video taped and delivered to the broader workforce.

Question 17. For each CPG product that GSA has in the stock program, why can't GSA stock only recycled content products?

Response. Federal agencies may purchase other than CPG-compliant products if they find either the price, availability or performance ofa CPG-compliant product does not meet their requirement. We fully support Federal efforts to procure CPG-compliant products and other recycled content products, and we have implemented strategies to inform customers of the requirement to purchase those items. GSA's mission, though not a mandatory source of supply, is to efficiently and effectively serve as a source of supply for all Federal agencies. In this role, GSNFSS provides agencies with both CPG products and, if such CPG products do not meet the agency's needs in terms of price, availability, or performance, non-CPG products. This determination, according to E.O. 13101, rests with the procuring agency and they are required, if the purchase is over $2,500, to complete a justification for not purchasing a CPG-compliant product.

Question 18. Is GSA willing to promote reduced packaging and packaging that contains recycled materials?

Response. As the Senator recognized in an earlier question, GSA has a dual responsibility in meeting the requirements to buy products that contain recycled materials. On one hand, GSA is, like all other agencies, a consumer and must abide by the requirement to purchase CPG-compliant products, which include packaging materials. In this role, we attempt whenever possible to specify the least amount of packaging material required to provide adequate protection of the product during the shipment, storage and distribution of products from our supply distribution centers.

We operate two large distribution centers located in Stockton, California, and Burlington, New Jersey. Our practices at these two facilities illustrate our progress in following environmental initiatives in the area of packing and packaging materials.

The primary opportunities for environmental responsibility fall in our selection of shipping cartons, paper jiffy bags, and in carton "fill" material. At present, both of our facilities utilize shipping boxes and jiffy bags containing recycled materials.

Our evolution and experimentation in the area of fill material has been ?Iively over the years as we have sought to identify the most practical, economical, and environmentally responsible fill material. Even before it became apparent some years ago that styrofoam peanuts were not desirable, our facilities experimented with low-tech solutions that attempted to reuse available packing materials. For example, various arrangements existed to reuse available packing paper (output from computer printing rooms, newsprint) rather than consign such material to landfills. Over the years, as recyclable disposal streams for such material became more uniform, attention turned to commercially available alternatives to styrofoam peanuts.

Today, our two facilities differ in choice of fill material, and they are still experimenting. Our Stockton facility is approximately 1 year into use of air-filled plastic bags. The same approach is being tested at our Burlington facility. Using what is essentially "air" as packing fill is very efficient from a transportation standpoint, since it reduces the energy needed to ship a given product weight. According to information available to us, these bags also take only 4 percent of the volume of paper at the landfill for an equivalent amount of packed material. This method of fill also takes less energy to produce. The air bags used at both Stockton and Burlington are recyclable (Nos. 2 and 4, respectively).

While Burlington is testing the air bag, it is continuing to use a recyclable, renewable, and biodegradable paper that is specifically designed for efficient package fill use.

In our other role, GSA through FSS is a source, albeit a nonmandatory source, and contracts for, and makes available to Federal buyers, a variety of products that includes packaging materials. We have eliminated all requirements for products that contain virgin materials from our specifications to enable us to offer to Federal agencies with CPG-compliant packaging materials. In addition, we emphasis the importance of purchasing these items in our publications and GSA Advantage! by placing a CPG icon next to products that meet the minimum recycled content levels established by the EPA. Equally important, our Environmental Products and Services Guide (EPSG) contains numerous paperboard and packaging products that are CPG-compliant as follows:

- FSC 8105 class groups includes envelopes and mailers for packaging small non-hazardous products; trash bags; burn bags; and grocery bags;
- FSC 8110 includes postal mailing tubes;
- FSC 8115 includes shipping boxes and containers; cushioning materials; cassette and disk mailers; and kraft paper; and, FSC 8135 includes corrugated fiberboard sheets; freezer wrap, pre-packing trays, and wax paper.

We also partner with the U.S. Navy in the PRIME (Plastics Removal in Marine Environment) program in which we eliminate all plastic packaging and packing materials in specific NSN's commonly used aboard ships (thereby requiring packaging materials that are recyclable).

Question 19. Since GSA controls the contract management and procurement of tens of thousands of government cars which are both purchased and leased, and, since in 1995, GSA issued a memorandum recommending re-refined oil use in government vehicles, why doesn't the General Services Administration require that all those car come equipped with re-refined motor oil and retread tires when we acquire them in the first place? When GSA did this for seat belts it was highly successful and resulted in first Detroit and then foreign carmakers installing seat belts in cars as original equipment. The same thing could would with re-refined oil. Has the government ever asked the companies which supply our cars if this could be done? I note that General Motors already does this when it supplies new locomotives. "Factory fill" lubricating oil from GM for locomotives is re-refined. Additionally, Mercedes-Benz supplies all it's cars from the factory in Europe with re-refined oil.

Response. The automobile manufacturers with whom we contract (Ford, General Motors, and Chrysler) do not deliver newly manufactured vehicles with either re-refined oil or retread tires to the Federal Government or to their commercial dealers. This continues to be their position despite our discussions with them. While the Federal Government does purchase a large number of vehicles annually, our total purchases represent less than 1 percent of total automotive sales. Because of the small percentage, we have not been able to influence the use of re-refined oil or retread tires.

Question 20. Also, when we lease cars, why doesn't GSA require, as a condition of the lease, that the dealer who services the car provide re-refined oil for regular oil changes? Normally, GSA leases a number of cars from the same dealership. Shipment of rerefined oil in case or drum lots to those dealerships from the Defense Logistics Agency seems highly feasible to implement such a condition of lease.

Response. GSA Fleet leases vehicles to Federal agencies. The customers are dispersed throughout the country and may use various venues to service their vehicles. However, in the instructions we provide to the lessor and commercial maintenance provider, we do encourage the use of re-refined oil.

Question 21. A few years ago, GSA very successfully eliminated all sales of virgin copier paper. Why is it that you still sell virgin desk top accessories, toner cartridges, binders and other virgin paper products when the recycled products have been proven to perform as well, to be cost competitive and readily available in the marketplace?

Response. Except for copier paper, Federal agencies may purchase other than CPGcompliant products if they find either the price, availability or performance of a CPGcompliant product does not meet their requirement. According to E.O. 13101 this determination rests with the procuring agency, which must document it in writing if the purchase is over $2,500. FSS, therefore, offers the full range of desk top accessory products, There is no requirement that only recycled-content desk top accessories be bought and made available. We would be restricting competition if we only offered recycled-content desk top accessories. Further, there may not be equivalent products in all categories that are cost effective and available in quantities to meet the needs of a wholesale program. We encourage our commercial partners to offer the maximum amount of recycled content in their products. We comply with the requirements of Executive Order 13101. Offerors must identify energy-efficient office equipment and supplies that contain recovered material, remanufactured products, or other environmental attributes. These items are identified in Government catalogs and pricelists, including GSA Advantage! to assist Federal agencies in purchasing products with environmental attributes.

Question 22. Why can't you eliminate the virgin products altogether from your catalog when there is a CPG equivalent?

Response. Federal agencies may purchase other than CPG-compliant products if they determine either that the price, availability or performance of a CPG-compliant product does not meet their requirements. This determination should be based on a life cycle cost assessment to ensure that they consider, for instance, the cost of disposal of non-compliant products, We fully support Federal efforts to procure CPG-compliant products and other recycled content products, and we have implemented strategies to inform customers of the requirement to purchase those items and identify the compliant products. However, GSA's mission is to efficiently and effectively serve as a source of supply for all Federal agencies. In this role, GSA/FSS provides agencies with both CPG products and, if such CPG products do not meet the agency's needs in terms of cost, availability or performance, non-CPG products.

However, the products listed in our Environmental Products and Services Guide (EPSG) are not made with virgin materials. The EPSG is published with the intent of promoting products and services that are beneficial to our environment. Therefore, the EPSG does eliminate virgin products altogether. It is important to note that the hard copy version of the EPSG is printed with soy ink on 100 percent recycled paper, made without chlorine, including 30 percent post-consumer recovered material. We make the EPSG available to Federal buyers via the Internet, while reducing the amount of copies that we distribute in print. We are pleased to inform you that this year's on-line edition of the EPSG has a feature that allows Federal buyers to produce a faxable purchase order form to further encourage the acquisition of products that contain recovered materials, in addition to other environmental attributes.

Question 21. How is GSA prioritizing the environmental attributes it is examining?

Response. Existing environmental laws and regulations, as well as Presidential Executive Orders that pertain to environmental product procurements are given the

highest consideration. Also, we actively and willingly participate in interagency workgroups that are tasked with implementing uniform environmental policy strategies. We assess recommendations that are generated by these workgroups and prioritize them accordingly.

In the construction and major modernization of buildings, PBS is using the U.S. Green Buildings Council's building rating system, Leadership in Energy and Environmental Design (LEED). This system identifies a number of environmental attributes across the range of building phases including: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, and Innovation and Design Processes. Each of these attributes is assigned a point range dependent on what the project demonstrates and culminates in a total score that can earn the Green Building rating of "Certified, Silver, Gold or Platinum." In this respect, prioritization of environmental attributes is achieved through a peer-reviewed, third party system.

Question 22. Is GSA working with EPA's Environmentally Preferable Purchasing Program to develop ways of identifying more environmentally preferable products?

Response. We fully support and applaud the efforts of the EPA Environmentally Preferable Purchasing (EPP) Program. Since 1993, GSA has been working with the EPA Office of Pollution Prevention and Toxics to identify opportunities to promote and encourage the acquisition of environmentally preferable products. The GSA Public Buildings Service (PBS) and the Federal Supply Service (FSS) participated with EPA in the Environmentally Preferable Products (EPP) pilot program for cleaning products. The joint effort of PBS and FSS focused not only on products offered in the supply system, but also on the use of these products in our Federal buildings. This became the prototype for EPA's EPP Pilot program. Since the inception of Executive Order 13101, in 1998, GSA has worked with EPA on pilot projects to assist with the implementation of the EPP guidance. Federal case studies of EPP are examples where environmental preferability was factored into purchasing decisions. These "success stories" can be found in EPA's EPP website and include the cleaning products studies performed jointly by GSA and EPA.

In 1998, the Federal Supply Service also released a guidance document for reporting information on environmental and performance attributes of architectural interior/exterior latex paints. Since then, we have published various documents and bulletins to advise Federal agencies on the environmental and performance attributes that they should consider while making their purchasing decision.

In addition, our FSS Environmental Programs web site was developed to promote the use of environmental products and services. We have posted a matrix of coating specifications (Federal and military) on the web site. It contains information that is intended to be a useful reference tool for Federal agencies interested in purchasing coatings that are less detrimental to the environment. This matrix can be used to locate a coating specification or commercial item description (CID) that meets a specific performance requirement and, at the same time, view the environmental attribute that is associated with that performance requirement. Also, we have links on the FSS Environmental Programs web site to The EPA Environmentally Preferable Purchasing Program web site. These web links give our customer agencies access to EPP training tools, EPP pilot projects, and important EPP documents.

We also support the EPA EPP program by providing Federal agencies with value-added information so they can make an informed and well-justified purchase decision, in accordance with EPA EPP guidelines. We obtain, evaluate and disseminate information from applicable Commercial Item Descriptions (do), Federal Specifications and Military Specifications. These ClDs and specifications are often the driving force behind certain prescribed environmental product attributes as well. Product information is organized within the GSA Environmental Product and Services Guide, as well as in GSA Advantage!—our on-line ordering system.

Our schedule contractors often provide Federal agencies with environmental information (e.g., environmental claims, product profiles, etc.) about their products either on the label or through product literature. This information is passed on to Federal agencies via published product descriptions contained in printed pricelists and other marketing advertisements and GSA Advantage!.

And last, we obtain, evaluate and disseminate environmental information obtained from "third-party" non-governmental entities. Two of the primary third party, nongovernmental certification organizations in the United States are GreenSeal and Scientific Certification Systems. GreenSeal is the primary independent certification organization in the United States and has already worked with private industry, U.S. EPA, the Department of Defense, General Services Administration (GSA) and others to develop environmental certification criteria for 34 product categories. Scientific Certification Systems' specifications are based not only on product character-

istics, but the situation in which products are manufactured and the environment in which they are used. GSA architectural and anti-corrosive paint, and adhesive suppliers now have the option of "certifying" their product(s) and/or manufacturing processes against either of these established "third-party" certification standards and/or specifications. Certification is not required, and GSA does not endorse any certification option over another. However, any manufacturer who becomes "certified" under one or more of the above mentioned standards/specifications would be properly delineated for customer reference.

Question 23. Does GSA have a team devoted to environmental purchasing issues? If so, how large is the team? What is the funding level? How is it structured? Who manages it? What is needed to make it more successful? What are the challenges facing the team?

Response. Yes. FSS has a team devoted to environmental purchasing issues. The team has four associates whose full time responsibilities are devoted to furthering environmental initiatives and compliance with a broad range of environmental laws and regulations. The annual salaries and benefits of these associates is $390,636. The team is located within the Office of Acquisition and organized as the Environmental Programs Branch within the Environmental and Engineering Division, FSS Acquisition Management Center. A branch chief manages the branch's responsibilities. We believe the team is successful in furthering environmental initiatives, not only on an agency basis but governmentwide. For example, FSS publishes an Environmental Products and Services Guide, as the best source of information on all the environmentally oriented products and services that are available from GSA's Federal Supply Service. Other examples of the team's initiatives were provided in the written testimony. Higher levels of success and challenges are interrelated. FSS continues to work on those challenges that we can control such as identifying best solutions and promoting these products through the GSA Schedules program. FSS will continue to strive to assist customer agencies to meet their environmental program mission objectives.

Additionally, PBS has an Environmental Strategies and Safety Division with a Director who reports directly to the GSA Agency Environmental Executive. This division is staffed with 12 employees responsible for a wide range of issues related to both safety and environmental initiatives, including managing and monitoring the agency Affirmative Procurement Program (APP) and the PBS Green Building Program. Annual salaries and benefits for this division total $1,170,194. This division continues to work with FSS to make CPG-compliant purchasing easier through their on-line ordering system and schedules programs. They have partnered with the GSA Office of Acquisition Policy, which chairs the FPDS interagency committee and is responsible for the FAR and the GSA supplemental acquisition regulations. The Safety and Environmental Strategies Division also works closely with the OFEE and the Task Force and will continue to do so to improve GSA's environmental stewardship, both internally and in its governmentwide role.

Question 24. How does GSA determine which products are more environmentally preferable?

Response. GSA, through the Federal Supply Service, makes a wide range of products and services available to Federal agencies, on a non-mandatory basis, to satisfy their mission needs. We do not make a determination for the agency about which products are more environmentally preferable than others. To assist the agencies in compliance with the requirements of various environmental orders and other regulations, GSA offers products that have recycled content, are CPG-compliant, are energy and/or water efficient and are less detrimental to the environment. It is up to the procuring agencies to determine their needs and select the most appropriate items. With respect to environmental preferability, a given item may be more appropriate in one area of the country while a different item may be more appropriate in another. An example of this is contained above under Question 24 wherein a matrix of coatings was mentioned that GSA has posted on the Environmental Programs web site. The matrix can be used to locate a coating specification or commercial item description (CID) that meets a specific performance requirement and, at the same time, view the environmental attribute(s) associated with that performance requirement.

Since 1993, GSA has been working with the EPA Office of Pollution Prevention and Toxics to identify opportunities to promote and encourage the acquisition of environmentally preferable products. In 1998, the Federal Supply Service also released a guidance document for reporting information on environmental and performance attributes of architectural interior/exterior latex paints.

Since then, we have published various documents and bulletins to advise Federal agencies on the environmental and performance attributes that they should consider when making their purchasing decision.

STATEMENT OF DOBBINS CALLAHAN, BUY RECYCLED BUSINESS ALLIANCE

Thank you, Senator Jeffords, Senator Smith and the full committee for the opportunity to speak today.

I serve as chair of the Buy Recycled Business Alliance (BRBA), an organization within the National Recycling Coalition dedicated to bringing purchasers and vendors of recycled content together in order to advance the purchase of recycled content products. My company, C&A floorcoverings Inc, has been involved with BRBA for several years. We manufacture and sell high performance carpet products, available in a wide range of colors and styles and available with significant levels of recycled content. All of our products are also 100 percent recyclable.

Before I begin, I also want to commend the work of the ad hoc coalition—National Recycling Coalition, Steel Recycling Center, American Plastics Council, Recycled Paperboard Alliance, American Zinc Association, Consumer's Choice Council—for recognizing the importance of green procurement and recycling, and working together to focus congressional attention on the GAO report.

The two aspects of Federal purchasing of recycled content products with which I am most familiar are, first, EPA's issuance of Comprehensive Procurement Guidelines (CPG's) and the Recovered Material Advisory Notices (RMANs) as prescribed by the Resource Conservation and Recovery Act 6002 (RCRA); and second, the General Services Administration's procurement process through the use of contracts with vendors. I am particularly familiar with issues involving Federal procurement of products that represent new and innovative technology, as would be the case of course with recycled content products.

Through my company's efforts to bring recycled content products into the Federal marketplace, I have personally been involved with the process of having products "designated" through the U.S. EPA. "Designation" means that EPA has studied a product category, found suitable products within the particular category to be available with meaningful recycled content, and has determined the practical levels of recycled content that are commercially available to the Federal marketplace. Once products have been "designated" by EPA, the purchase of those products with recycled content is essentially mandated for Federal purchasers.

While I have the greatest respect for the people at EPA who are doing this work, and are impressed by their commitment, dedication, and hard work, intrinsic to the designation process are two obstacles to making innovative products available to Federal purchasers. The first obstacle in the Comprehensive Procurement Guideline process is that before "designation" can occur, there must be competitive products available offering comparable levels of recycled content. This is both a disincentive for a company to be first in the market place and also delays the imprimatur to purchase recycled products that EPA designation can provide.

I understand, and support, the wisdom of not mandating a product when there is only one supplier. Even the best of companies could be tempted under those circumstances. But the inability to designate a product because it is too advanced to have direct competition means that these products cannot be promoted in the Federal market place and are not given the benefit of the progressive procurement efforts conducted by the Office of the Federal Environmental Executive (OFEE). Until there is formal recognition under EPA's CPG process, OFEE is somewhat limited in what it can do to promote purchases of a product regardless of the quality of the product or the recycled content.

My suggestion is that there be another category in the CPG / RMAN process. A product could be "recognized" to meet the intent of Executive Order 13101 and RCRA 6002, but not be designated because of lack of competition. This recognition would allow Federal agencies to use procurement of these products to meet 13101 goals, but procurement of these products would not be mandated. Currently, a recycled content product can be available with high levels of recycled content and suitable performance characteristics but will not be designated by EPA, and cannot be used by Federal purchasers to meet recycled content purchasing goals, simply because there is no similar competitive product with recycled content. I'll address pricing concerns in a moment.

The other obstacle to having recycled content products promoted to Federal purchasers is the sheer amount of time it takes to go through the designation process. It literally can take years to go through the evaluation process, the public comment period, the review period, and the designation. I want to reiterate that the people

I have worked with at EPA are, without exception, hard working, dedicated and committed people with a willingness to do the right things. This is not an issue of the quality of people. To the contrary, faced with the Herculean challenges they face, I think they have had remarkable success. The first problem is that they simply don't have the resources available, in my opinion, to accomplish their task in a timely fashion. The second problem lies within industry itself. EPA has a very open process of inviting industry to participate from the inception of the review of a product category through its final designation. Along with the opportunity to influence regulations that this affords to industry should come an obligation to be responsible in the process. My experience is not encouraging in this area. Unfortunately, the research and designation process can be manipulated by less than complete information. Obviously, it is in the best interest of a manufacturer to appear to be complying with the intent of the proposed CPG designation. It is apparent that in this process some industry members have not been as forthright as the process is designed to encourage. If EPA had additional resources it would be able to at least spot-check some of industry's claims in greater detail. EPA could also require companies submitting information to state they are in compliance with the FTC's Guide to Environmental Marketing Claims. The other aspect of Federal procurement that I would like to address is the General Services Administration and particularly the National Furniture Center in Arlington. GSA changed its procurement process several years ago from a "single award" schedule or contact to a "multiple award schedule" (MAS). Rather than vendors submitting products for bids in narrowly defined product categories, and having only one vendor for each contract, GSA now defines categories broadly, assigns specific criteria for a product to be included in the category, and then negotiates pricing with the vendor rather than obtaining competitive sealed bids. A means of negotiation is for the prospective vendor to document to GSA that its is offering the product at the lowest price it offers the same product to its best customers in the commercial market place. GSA therefore obtains for its customers the best price that competitive forces have established for the product. Because GSA uses the best competitive price, the need for sealed bids is eliminated and the Federal customers are still assured of "best value" purchases. While there are many advantages to this approach, the advantage that is significant to this issue is that GSA can and has placed recycled content products on the GSA contract, even if there is no other comparable products available with recycled content, and Federal purchasers can purchase these products without having to further competitively bid them. The Federal Acquisition Regulations recognize this process as establishing best value. If EPA can overcome the barrier of not recognizing products, which have no competition, GSA offers a vehicle to get these products to the Federal marketplace without the agencies having to be concerned with finding competitive recycled content products and with full assurance that pricing is at best value levels.

GSA is effective through other efforts as well. GSA nationally has a program, "Planet GSA," specifically structured to bring Federal agencies into contact with those companies that are providing products meeting Federal agencies needs for environmentally preferable products. These meetings, conducted periodically at strategic GSA locations across the country, provide the perfect venue for Federal customers who are interested in "buying green" to meet vendors with the best products for their needs. My experience with Planet GSA shows they have been exceptionally well done and are successful.

The next two programs are specific to the National Furniture Center. Through the NFC, the companies with the very best efforts in environmental initiatives are recognized with the "Evergreen Award." Not only does this award provide an incentive for vendors to offer more recycled content products; it also gives those companies who have won the award credibility and recognition with Federal purchasers, thereby encouraging the purchase of recycled content products. Also, several years ago, the Furniture Center established its "Quality Partnership Council." The purpose and result of the QPC is to bring vendors and Federal purchasers together to develop more effective and efficient means of procuring products through the Multiple Award Schedules. I was a participant of the QPC meetings for several years and saw as an observer how very effective this organization was in streamlining Federal purchasing; including purchasing recycled content products. The QPC meetings have all the appearance of the most aggressive corporate board meetings, except they are run more efficiently. My suggestion is that all Procurement Centers expedite adopting the QPC concept. It is a model of efficiency and of industry and government working cooperatively for everyone's benefit.

The theme I have tried to develop is that most of the mechanisms are in place for much more effective purchasing of recycled content products by Federal purchasers. With adequate resources, a resolution of the "competitive" requirement, and

a means to hold industry more accountable for comments made regarding proposed CPG's, EPA can be effective in designating more products quickly. GSA, through its Multiple Award Schedule has the vehicle to take these products to the Federal marketplace, and innovative programs like "Planet GSA, the Evergreen Award, and The National Furniture Center's Quality Partnership Council can reinforce the good work being done by the OFEE in its efforts at affirmative procurement.

Thank you.

RESPONSES OF DOBBIN CALLAHAN TO ADDITIONAL QUESTIONS FROM SENATOR JEFFORDS

Question 1. You recognized the good work being done by GSA's National Furniture Center in promoting the purchase of recycled content products through a variety of innovative approaches. Do you have a specific perspective on how well Federal purchasers across the board are being trained to bring about the intent of 13101 / RCRA 6002?

Response. From my perspective as an industry representative and as Chair of both the Buy Recycled Business Alliance (BRBA) and The National Recycling Coalition (NRC), I don't have insight into the mechanics or the magnitude of training of Federal purchasers. Frankly, I cannot determine how active The Defense Acquisition University (DAU), the Federal Acquisition Institute (FAI) and others have been in developing and offering training courses on green purchasing. It is my perception, however, that progress has been made in this area. Five years ago, virtually no Federal purchasers that we called on were aware of the requirements of 13101. In my estimation, today close to half of the purchasers we call on have at least a working knowledge of their recycled content purchasing requirements. While obviously "close to half" is not good enough, it's a big improvement. I believe that a comprehensive, broad-based training program that provides agency staff with not only the background on 13101 but also an overall briefing on RCRA, the EO's, and some concrete examples of purchases that have met the 13101 requirements is essential. Both BRBA and NRC have held training sessions targeted to local, regional and State government procurement officials. Additionally, BRBA and NRC have targeted corporate purchasing professionals with not only direct training sessions but also developed a Managers Purchasing Guide that includes basic "how to purchase recycled products" along with simple steps for companies.

At issue is more than just training regarding the "mechanics" of 13101 purchasing. I am certain that there is a largely unaddressed need for better training in evaluating environmental marketing claims being made by vendors to the Federal Government. As I will discuss below, purchase decisions are being made based on incorrect conclusions due to Federal purchasers being unable to differentiate between various claims. The fault is not with the purchasers. They are doing far better than could be expected based on the challenges they face in trying to make informed decisions. I will develop this further in my answer to the next question.

Question 2. In your testimony, you referred to "ambiguous" environmental marketing claims and FTC's potential role in reducing these claims. How widespread do you think the problem is? I know that you were representing BRBA and not the carpet industry specifically, but it would be appropriate for you to call upon your carpet background to answer the question.

Response. In my opening testimony, and in the question and answer portion that followed, I referred to "ambiguity" in marketing claims and the subsequent confusion created by these claims. The use of misleading marketing claims creates one of the most significant barriers to purchasing recycled content products in commercial markets, as well as the Federal marketplace.

It is my personal philosophy, and that of my company, to "take the high road" in marketing our products and in talking about competitors. While my answer was consistent with my desire not to criticize competitors, upon reflection, I think that my answer was a disservice to the hearing. As you know, I do believe that misleading information within environmental marketing claims is widespread and, at least to a significant degree, intentional.

My perspective is based on the fact that I have spent most of my working career in the carpet industry, and my specific observations are on the carpet industry. I do, however, have broader perspectives coming from my involvement with the BRBA and the NRC, and my strong personal commitment to environmental issues. I am convinced that the problem of misleading marketing claims is by no means unique to any one industry and is far more widespread than we would all desire.

Before I get to specifics, I would like to assure you that I am not trying to position my company as perfect or as the arbiter of what is right and wrong in industry.

I would add, however, that we do everything within our power to understand and comply with responsible environmental marketing practices.

We see project after project within the carpet industry in which the customer is given so much conflicting information by vendors that it is virtually impossible for a reasoned choice to be made. Obviously, these same projects are awarded based on erroneous conclusions made as a result of misleading information provided by vendors.

For example, we see claims of recycled content in products in which we know the recycled material is not available or at least is not available in reasonable quantities.

We see claims of products available with very high-recycled content, but with obscure qualifiers, separate from the claim, saying that the manufacturer reserves the right to substitute virgin content at any time without notification to the customer. We have seen claims of "up to 100 percent recycled content" when we know the recycled content is 0 percent. Unfortunately, in these examples and others, we know that the vendors making the claims are aware that the claims are not consistent with the FTC Guides.

In the past, Corporate America could be relied upon to be extremely competitive though essentially honest. It was this intense competition, along with basic integrity, that brought about huge technological and social advances in our economy.

Today there seems to be, among some companies, a disregard for honesty in marketing, with "closing a deal" being more important than fundamental ethics in business. I don't think it would be a mischaracterization to say that the same disregard for principles that has led to the recent corporate accounting scandals is driving at least some environmental marketing programs.

When companies can be successful in environmental marketing through misleading claims, they have no incentive to actually develop the innovation that can bring improved systems and products to the marketplace. While it would not be fair to say there is a lack of effort in developing recycling programs, I am convinced that it is not happening as fast as it should or could if corporations were holding themselves accountable, or being held accountable, by their shareholders or by the Government.

I want to add that I do not think that the majority of American companies are misleading customers either intentionally or unintentionally. Those who are doing good things, however, are being harmed by the few who are getting away with not trying to do the right things.

Misleading information also causes a hardship for Federal purchasers. No matter how well trained or intended Federal purchasers are, I don't think it is possible, in many cases, for them to make informed choices. As a result, they either make choices that don't accomplish what they intend or they give up in frustration.

I think the solution is multifold.

1. In addition to being taught the mechanics of purchasing under 13101 / RCRA 6002, etc., Federal purchasers should be taught how to recognize and avoid misleading marketing claims. Immediately upon becoming aware that there was a problem in making and interpreting environmental GSA's Furniture Center, which I mentioned in my testimony, began a program to better educate vendors and purchasers regarding the FTC guides. GSA at the Furniture Center is helping purchasers and vendors alike to understand how to present and evaluate marketing claims. While this is a non-regulatory approach, as Federal vendors find that Federal purchasers are equipped to interpret misleading claims, they will be more constrained to tell the truth. The education program also will provide a forum for vendors to suggest improved accountability among themselves, with GSA's oversight.

2. Industry trade groups should be encouraged to establish programs of accountability. Because the consensus nature of trade groups can squelch the influence of the most innovative members, an independent, third party organization could be set up as both a training organization to ensure that the corporate community is briefed on the FTC Guides. An independent third party organization could provide the necessary accountability and oversight needed to ensure compliance and reduce misleading claims.

3. The National Recycling Coalition is undertaking a program (similar to GSA's) to educate purchasers and vendors. The difference is that NRC's audience embraces State governments, private corporations and NGO's, in addition to Federal customers. Like GSA, NRC's approach will be educational in nature with no intent of establishing regulations or penalties. It would be within the mission of NRC to help industry groups develop the self-assessing programs I suggested in number 2, above. A suggestion from this committee that such an undertaking would be valuable would serve as a great encourager to NRC. 4. As much as I believe in the effectiveness of educating purchasers and vendors and in industry self-regulation, I suggest

that there will have to be some degree of enforcement also. This will protect the vast majority of "good actors" from the few who aren't. While the FTC does not have staffing to evaluate most, or even many, claims, a few high profile, well-publicized cases in which misrepresentations have been brought to light would be very effective. Just as not every accounting malpractice can be prosecuted, neither can every misleading marketing claim. If a few are, however, the possibility of discovery will certainly encourage others to be more "careful."

If it becomes apparent that the FTC is serious about uncovering corporate misrepresentations, especially to the Federal marketplace, this would have a huge impact on these claims. The companies that are doing the right things would celebrate accountability in their marketplace. It would become much more practical for Federal purchasers to do their jobs responsibly, and the purchase of recycled content products would move forward much more aggressively.

Thank you for the opportunity to clarify my remarks. I don't think that there is any single greater barrier to Federal purchasing of recycled products than the confusion caused by misleading (ambiguous) marketing claims. Through better education of purchasers, better industry self-regulation, and the high profile involvement of the FTC in enforcing existing guidelines, more recycled content products will be purchased to the significant betterment of the environment.

STATEMENT OF CLIFFORD P. CASE, NATIONAL RECYCLING COALITION, INC.

I am grateful to Senator Jeffords, Senator Smith and the full committee for the opportunity to speak today on behalf of the National Recycling Coalition about the importance of Federal procurement of recycled products. Recycling makes environmental sense and economic sense; it is enduringly popular with citizens of all ages and backgrounds throughout the Nation; it is thoroughly bipartisan; and it deserves the full support of all agencies of the Federal Government. But while much has been accomplished since the first Earth Day focused public and governmental attention on recycling, much, much more remains to be done.

I am an attorney, and co-direct the Environmental Practice Group at my firm, Carter, Ledyard & Milburn in New York City and Washington, DC. For over 30 years I have maintained a significant interest in recycling and tried to do what I could, as a lawyer, to make it grow, including founding the National Recycling Coalition in 1978 to unite the diverse groups who wish to see recycling succeed. The Coalition has 5,000 members representing all aspects of recycling: volunteer recyclers, State and local government officials, businesses collecting and sorting materials for recycling and manufacturers of recycled products.

It is fitting that we speak here of Federal procurement of recycled products, because it was the passage of the Resource Conservation and Recovery Act and its signature by President Ford in October, 1976 that was a major catalyst for the organization of the National Recycling Coalition. Recycling has always been recognized as a prime method of conserving resources, and consequently, RCRA contained an important provision, Section 6002, that for the first time required that the Federal Government's purchasing power be used to support recycling. An important reason for the formation of the National Recycling Coalition was to work for the implementation of Section 6002 and later efforts to use Federal procurement to strengthen the markets for recovered materials and thus make more recycling possible.

Have we done enough in the past quarter century to comply with Section 6002 and the executive orders subsequently issued by the first President Bush and by President Clinton on procurement of environmentally preferable products? Unfortunately, no. Things started off on the wrong foot when the Environmental Protection Agency failed to issue guidelines for the purchase of recycled products by deadlines added to Section 6002 by Congress in the face of agency inaction, forcing the National Recycling Coalition and Environmental Defense to sue EPA, successfully, for an order directing guideline issuance.

Since that time some progress has been made, but as documented by the General Accounting Office's June 2001 report, "Federal Procurement: Better Guidance and Monitoring Needed to Assess Purchases of Environmentally Friendly Products," by no means has that progress been sufficient. There have been limited successes and isolated achievements, but anecdotal accomplishments are not enough.

In general, Federal agency procurement does not take advantage of the broad range of high-quality recycled products available in the marketplace today. As the GAO report makes clear, most agencies do not know what recycled products they are purchasing, and government buyers lack knowledge as to what products are available or how to get them. Purchasing data is fragmentary, in most cases based only on estimates, and incomplete. Many agencies report little or no information,

and important components of many agencies (for example, in the case of the Department of Defense, the Army, the Navy and the Air Force) provide little or no information.

Moreover, the programs that do exist cover direct agency purchases only. I know of no instance in which agencies make any effort whatsoever to assure compliance with Section 6002's affirmative purchasing requirements by their contractors and grantees. This is of vital importance because purchases by contractors and grantees using Federal funds are often much more significant than those of the agencies themselves: GAO notes that in fiscal year 1999, 85 percent of the total outlays of the Department of Housing and Urban Development were for grants to States and local governments, and 69 percent of the total outlays of the Department of Transportation were for such grants. It is safe to say that none of those grantees knew that by law, they were required to give a preference in purchasing to recycled products.

A review of agency responses to the GAO report demonstrates that while most agencies give lip service to the importance and desirability of recycling, they do not take responsibility to make procurement of recycled products work, either for themselves or for their contractors and grantees. Moreover, these agencies make no effort to justify their failures to perform. While noting that training of buyers in procurement of environmentally preferable products is needed, the agencies show no indication of any attempt to provide such training, either on their own or in conjunction with others, despite being charged by Congress with the duty of affirmative procurement of recycled products. Such blatant disregard of the law should no longer be condoned.

This bureaucratic foot-dragging, prolonged for over two decades, is immensely frustrating to those of us who have been advocates for more recycling over the years, but it is also important to society as a whole, because the ability to recycle more, and thus achieve the benefits of conservation of resources, reduction of pollution and savings in energy—all important to our national security as well as to the environment—depends directly on strong markets for recovered materials, and these markets depend directly in turn on strong markets for the recycled products made from those materials. Every time a Federal agency fails to buy a product made from recovered paper, plastic or metal, it condemns that material to the landfill instead of to a new, productive rebirth as a recycled product. Every time a Federal agency fails to require its contractor or grantee to use construction products made from recovered materials, it ensures that those materials will be thrown away and not recovered.

This is not by any means an academic issue. This past July 1, in my home of New York City, the Department of Sanitation stopped collecting recovered glass and plastic bottles and paperboard drink containers. The reason asserted by the City administration? A lack of markets for these recovered materials. One may be somewhat skeptical of the City's reasoning here—I know I am—but the fact remains that a number of municipalities have recently cited a lack of markets as a reason for cutbacks in recycling collection efforts. Furthermore, data from the Environmental Protection Agency show that after a decade of significant growth, the nation's recycling rate leveled off in the late 1990's: waste generation began to increase faster than recycling. Moreover, many of the products entering the waste stream today, in particular the ever-growing flood of obsolete electronic equipment, are particularly tough to recycle, and require even more effort to achieve success in recycling than the simpler waste materials of the past.

Given this background, it is especially infuriating to encounter the bland assertions of procurement bureaucrats that purchasing recycled is too difficult to do, or requires more information that is not easily available, or more training that someone else needs to provide, and so on ad finitum.

It is evident that we need to do more than we have been to break down the barriers to greater success in government programs to buy recycled. Most importantly, every responsible procurement official needs to make buying recycled an important part of his or her duties, and every government contractor and grantee needs to receive clear instructions on its obligation to recycle. If these duties and obligations are not fulfilled, definite sanctions should be imposed, proportionate to the seriousness of the offense. For a procurement official, a failure to buy recycled should be recognized as a failure to perform his or her duties of office. For a contractor or grantee, a failure to buy recycled should be recognized as a failure to perform the terms of its contract or grant agreement.

Several promising initiatives have been proposed to increase the success of the government's procurement programs for recycled products. The National Recycling Coalition has not taken an official position on these initiatives, but we hope this committee will consider some or all of them. They include: codification of the exist-

ing executive orders on procurement to, among other things, give statutory sanction to principles of design for recyclability, life-cycle costing and reliance on environmentally preferable products; requiring major improvements in the woefully inadequate information collection system for purchasing recycled products, so that year-over-year progress—or its absence—can be more clearly tracked; providing for mandatory training programs for government buyers, to take the mystery out of buying recycled; and a congressional award program to recognize those dedicated public servants who, despite all the current obstacles, have nevertheless managed to buy recycled products successfully.

Coupled with these new initiatives must, however, be a continuing interest in this subject on the part of Congress, because no legislation is self-executing and careful oversight is essential. If nothing else, the history of Section 6002 of the Resource Conservation and Recovery Act since 1976 teaches us that!

We commend this committee for its interest in government procurement of recycled products. As we know you agree, the benefits of recycling are great and have been repeatedly documented. But we cannot achieve these benefits unless we take buying recycled seriously. The government represents us all and should be the leader, not the laggard, in doing just that. The National Recycling Coalition looks forward to working with you over the coming months to make sure that this vision of true government leadership becomes reality.

STATEMENT OF FRED VON ZUBEN, CHIEF EXECUTIVE OFFICER, THE NEWARK GROUP, ON BEHALF OF THE AMERICAN FOREST AND PAPER ASSOCIATION

Mr. Chairman, and members of the committee, my name is Fred von Zuben and I am pleased to have this opportunity to present the views of the American Forest & Paper Association on a subject of critical importance to our industry: recycling. I am CEO of The Newark Group, Inc., a 100 percent recycled paperboard manufacturing company headquartered in Newark, New Jersey. My company has over 100 years of experience manufacturing recycled paper products, and I am pleased to lead a committee of CEO's in the industry focused on issues related to recycling and recovered fiber.

The American Forest & Paper Association (AF&PA) is the national trade association representing more than 240 member companies and related associations that engage in or represent the manufacturers of pulp, paper, paperboard, and wood products. America's forest and paper industry ranges from paper mills employing thousands of workers to family owned sawmills and millions of woodlot owners. More than 80 percent of our manufacturing members from the smallest to the largest producer rely to some extent on recovered paper as a raw material.

Paper Industry Record on Recycling

Over the past two decades recovered fiber became an integral component of the paper industry. Capital investment, raw material sourcing, and product design decisions now often include consideration of the use of recovered fiber and greater recycled content. For companies such as mine, this is not a new idea, but for others in different segments of the industry, the greater reliance on recovered fiber came about more recently.

In the 1980's, we saw a great increase in the public's interest in recycling and a willingness to participate in collection programs spawned by concerns over possible landfill shortages and the media coverage given the "garbage barge" looking for a home for urban solid waste. In very short order cities across the country put in place residential curbside collection programs and offices sorted out the valuable white papers for sale to our mills.

AF&PA responded to pressures from the public and elected officials to increase our use of these recovered materials. In the early 1990's our industry pledged to recover for recycling 40 percent of all U.S. paper produced. This was an unprecedented goal and as you might imagine many—including some in our own industry—were skeptical of our ability to meet such a goal. But we did meet it—as billions of capital dollars went into upgrades of our facilities and building of brand new mills. We institutionalized the market for clean, sorted papers coming from residential and commercial users across the U.S. Our recovery goal is now 50 percent and we expect to meet that level within the next few years.

Status of Paper Recycling & Utilization in the Paper Industry

As the committee considers the progress of national recycling efforts we believe you will agree that the paper industry represents an outstanding success story. According to EPA statistics, more paper is recovered in the U.S. for recycling than all other materials combined. Paper recovery increased 97 percent since 1987 when the

recovery rate was 28.8 percent. For specific product categories such as newsprint and corrugated containers the numbers are unprecedented: 78 percent and 75 percent recovery levels respectively. (As you may have experienced, finding an empty cardboard box behind a grocery store has become much more challenging as our customers invest in profitable baling and recovery operations.) Printing and writing papers—often scarce in curbside programs have climbed to over 42 percent recovery due to the greater diligence of commercial establishments and office buildings. So far this has worked, but a crisis is looming. (See Attachment 1, "Recovered Paper Statistical Highlights 2002 Edition") Perhaps even more significant than the increase in the recovery rate is the increase in the domestic utilization rate for recovered fiber, which now accounts for almost 38 percent of the industry's raw material supply.

Constrained recycled fiber supplies

Our expectations of an increasingly constrained recovered paper fiber supply were confirmed recently in a study prepared for AF&PA by Franklin Associates Ltd., a U.S. consulting firm with years of experience analyzing domestic recovered paper markets, and EU Consulting, located in Starnberg, Germany, and known for its expertise in global paper recycling trends. The report concluded that domestic paper mill demand for recovered paper will be squeezed in coming years by an anticipated 50 percent surge in U.S. exports of recovered paper, with much of the incremental demand coming from China. The two largest recovered paper grades—news and old corrugated—are expected to be in particularly tight supply in the 2004–2006 time period. The report calls for collecting as much news and corrugated as is economically and logistically feasible and collecting more mixed papers from homes and offices to fill the anticipated gap.

As domestic and export demand for U.S. recovered fiber continue to grow, we run the risk of seeing existing recycled paper and paperboard capacity idled due to insufficient fiber availability. Our industry looks to recovered paper as a valuable raw material, not as a garbage or waste problem to be dealt with. As recyclers we continually fight against programs which would give financial incentives to those who would use paper as a fuel source, or municipal waste managers who would deny us access to recovered paper in their communities.

Misguided Federal procurement policies exacerbate our recovered fiber supply. I have heard many calls for raising the content requirement for federally purchased copy paper from 30 percent to 40 percent. This is a simplistic idea that may in fact hurt more than it helps, as it may increase the demand for recovered fibers currently going into other recycled products, like tissue or paperboard, without leading to a corresponding increase in recovery. Currently, 42 percent of Printing/Writing papers are recovered, but 35 percent of that is exported, almost 25 percent is used for tissue and an additional 21 percent is used in recycled paperboard. The unobstructed flow of recovered fiber into the products in which it can be most efficiently utilized will help, rather than hurt recycling in the long run by allowing it to continue to develop in a cost-effective manner.

As our industry faces potential supply shortages for recovered paper the Federal Government should rethink its artificial preference for so called "post-consumer" paper. Arbitrary definitions and recycled content percentages, based on the source of the recovered fiber, force recovered fiber into specific products and ignores underlying economics and technological constraints.

It is important to note that the RCRA requirements that underlie the Federal procurement guidelines were designed to create a market for the materials that were being collected in recycling programs. Today, 96 percent of all paper being collected for recycling is being used to make new paper and paperboard products. The rest is used in other applications, such as insulation, animal bedding, composting, and molded pulp such as egg cartons.

Our industry worked closely with EPA in developing the existing paper procurement guidelines. As a 100-year old recycler, a company such as mine stands to lose if the government arbitrarily raises the content guidelines for certain types of paper, like copy paper without an adequate supply of recovered fiber available in the market.

Role of Federal Programs in Paper Recycling

Mr. Chairman, in response to the committee's request for input on Federal procurement of recycled-content products, we would like to point to the fact that paper products have received more attention in this area than any other product. This, I might say, is a testament to the great utility of paper, which we use to disseminate information and knowledge in the form of newspapers and books, as consumer goods packaging, transport packaging, as tissue and untold other uses.

Federal procurement guidelines for paper products were first developed in 1988, pursuant to RCRA Section 6002. Those guidelines identified numerous categories of paper products along with targeted recycled content rates. The EPA guidelines for paper products were updated in 1996, pursuant to Executive Order 12873, which also set specific percentage goals for printing and writing papers. A subsequent Executive Order 13101, specifically required Executive Agencies to purchase printing and writing papers meeting a minimum recycled content of 30 percent. Currently 98 percent of copy paper procured by the Federal Government meets the 30 percent post consumer content requirement. Yet Federal procurement of Printing/Writing papers accounts for only 2 percent of the copier paper procurement in the United States.

Implementation of Executive Order 13101 has focused the Federal Government's efforts to buy recycled largely on paper products. There are, perhaps, similar opportunities in other products and other material groups which should be pursued. The successes of the paper-recycling program could serve as a guide for success in other product areas.

Recommendations for Improvements in Federal Recycling Policies

Mr. Chairman, Members of the committee, there are many reasons for the government to take the lead in promoting recycling. Leadership, however, means taking a leadership role on both sides of the equation, supply and demand. Without a doubt, purchasing managers should be more cognizant of what they buy, but at the same time building managers needs to be more cognizant about what they throw out and what they recycle.

Given the current state of paper recovery in the U.S., and unprecedented use of recycled fiber throughout our industry, we would offer the following recommendations for Federal Government actions in the area of paper recycling:

1. Enhance the mission of the Office of the Federal Environmental Executive (OFEE) to give greater emphasis to recovery of used paper. The Federal Government is a huge user of many high grade office papers as well as nearly every product grade manufactured by our industry. We understand that many Federal facilities do not offer collection programs or actively encourage participation in those programs which exist. Agency procurement officials seeking to encourage recycling through purchase of higher content recycled products may be missing a much greater opportunity by allowing the massive amounts of office paper generated within the walls of their own buildings to go unclaimed. The OFEE would be well positioned to assist agencies in devising collections programs and monitoring the progress of those agencies.

2. Work to improve paper recycling in Federal buildings and encourage local officials to continue effective collection and sorting programs for municipal solid waste processing. As the committee will undoubtedly be hearing today, local budget constraints are leading to the elimination of many curbside programs. Fortunately, paper recovery is often maintained due to the greater economic sustainability, and even profitability of paper—primarily due to the investments our industry has made in recycled paper manufacturing and processing (see above).

Our industry was a proud forerunner in building the recycling infrastructure starting with Boy Scout and church paper drives. As cities and counties have taken over these programs it is critical that they maintain a reliable, uninterrupted, and clean flow of recovered materials. Our industry invested billions of dollars to meet the demand for recycled content products on the assumptions that these private and municipal collection programs would continue as a reliable source of raw material.

Mr. Chairman, on behalf of the members of the American Forest & Paper Association, I appreciate this opportunity to appear before the committee today. As you see from our statement, the paper industry is proud of its record on recycling and the recovery of paper from the waste stream. Use of recovered fiber is not on the periphery of our industry—it is a vital component of our economic health and well-being. We look forward to working with you and members of the committee as you evaluate Federal policies which will encourage ever-increasing paper recovery in the U.S.

ATTACHMENTS

STATEMENT OF THE AMERICAN FOREST AND PAPER ASSOCIATION

SUMMARY OF FINDINGS: DEMAND/SUPPLY OUTLOOK FOR U.S. RECOVERED PAPER

The U.S. paper industry has greatly expanded its reliance on recovered paper since the late 1980's. Indeed, recovered paper's share of total industry fiber consumption has climbed from 25 percent in 1988 to nearly 37 percent today. The increased importance of recovered paper as a source of fiber for U.S. mills was facili-

tated by technological advances and by the rapid growth of curbside, office, and retail collection programs.

Looking to the future, the U.S. paper industry may be facing a recovered paper supply shortage that is likely to come to full fruition during the 2004–2006 period, but for which early signs may already be emerging. This is the central conclusion of a new report on the future supply/demand balance for U.S. recovered paper jointly prepared for AF&PA by Franklin Associates, Ltd., a U.S. consulting firm with years of experience analyzing recovered paper markets, and EU Consulting, which is located in Starnberg, Germany, and is known for its expertise in global paper recycling trends.

The report focuses on two key years: 2000 and 2006. The year 2000 was chosen as a starting point because 2001 data were thought to be skewed by the industry downturn. The report suggests that domestic mill demand for recovered paper will expand approximately 6.5 percent during the 6 year projection period, which is about in line with the growth outlook for paper and paperboard consumption. However, this balance will be offset by an anticipated 50 percent surge in U.S. net exports of recovered paper, with much of the incremental demand coming from China.

Specifically, the report suggests that total demand for U.S. recovered paper will increase by some 7.9 million tons during the 2000–2006 timeframe, with domestic consumption rising 2.1 million tons and exports surging 5.8 million tons. Domestic consumption of paper and paperboard is expected to rise 6.4 million tons during the same period, suggesting that incremental recovery will have to exceed incremental supply. The recovery rate would have to rise from about 46 percent in 2000 to 50 percent in 20006 to accommodate the demand increase.

But aggregate increases in demand and supply for recovered paper mask important changes at the individual grade level. In particular, the report suggests that if domestic mills and export customers were to obtain all the old newspapers (ONP) they require, the ONP recovery rate would need to exceed its estimated maximum level of 72 percent. This suggests that some users of old news will be forced to shift to mixed papers or wood pulp. The recovery rate for old corrugated containers (0CC) is projected to approach, but not exceed, its maximum level in 2006, which is also estimated to be 72 percent. Moreover, should there be a temporary export surge, as has occurred several times in the past, OCC demand may for a time exceed maximum recovery rates, leading to an ultra-tight demand/supply balance.

In sum, the report suggests that the two major recovered paper grades—ONP and OCC—will be in tight supply by 2006, or perhaps earlier. Pulp substitutes, converting scrap and overissue news and magazines are already being collected to the maximum extent possible. In consequence, to avoid a supply future crunch, the report suggests that ONP and OCC collections from non-traditional sources be maximized (i.e., OCC from homes and offices and more ONP from offices) and that the industry increase its efforts to encourage the collection and use of mixed papers. The report identifies paper consumption and recovery by grade and location and will serve as a valuable tool in the effort to increase recovery at a reasonable cost while maintaining recovered fiber quality.

Technical note: The recovered paper numbers and recovery rates cited in the report differ from the measures traditionally reported by AF&PA in the following respects: In an effort to improve accuracy, the report uses data of importing nations as a preferred measure of U.S. recovered paper exports. Also, the report factors newspaper inserts into the ONP recovery rate and factors estimated imports of corrugated packaging into the OCC recovery rate. These adjustments tend to balance out in terms of the aggregate U.S. recovery rate, with exports higher than those reported by Census being offset by a larger consumption base due to the factoring in of imported packaging. AF&PA contemplates incorporating these refinements into its future recovery rate calculations, but has not done so in the past.

COMPARISON OF 2000 AND 2006 RESULTS

(thousand tons)

	2000	2006	Difference	
			Tons	Percent
Newspapers.				
New Supply	15,024	13,822	(1,202)	−8.0 %
Recovery	10,805	9,952	(853)	−7.9 %
% Recovery	71.9 %	72.0 %		0.1 %
Containerboard.				
New Supply (1)	35,713	38,835	3,122	8.7 %

COMPARISON OF 2000 AND 2006 RESULTS—Continued

(thousand tons)

	2000	2006	Difference	
			Tons	Percent
Recovery	23,464	27,377	3,913	16.7 %
% Recovery	65.7 %	70.5 %		4.8 %
All Other (2).				
New Supply	56,735	61,230	4,495	7.9 %
Recovery	15,055	19,866	4,811	32.0 %
% Recovery	26.5 %	32.4 %		5.9 %
Total.				
New Supply(1)	107,472	113,887	6,415	6.0 %
Recovery	49,324	57,195	7,871	16.0 %
% Recovery	45.9 %	50.2 %		43 %

Source: Franklin Associates, Ltd.
(1) New Supply = AF&PA new supply adjusted for corrugated box imports.
(2) All Other category consists of mixed papers, high grade deinking, and pulp substitutes.
Recovery based on EU Consulting exports.
2006 recovery of ONP capped at 72 % of new supply.

If you have any questions regarding the study, please contact Remy Esquenet, Director of Paper Recovery, at 202–463–5162.

EXECUTIVE SUMMARY OF FRANKLIN ASSOCIATES AND EU CONSULTING STUDY CONDUCTED FOR AMERICAN FOREST & PAPER ASSOCIATION

FOREWORD

Paper recovery rose to 48.3% in 2001 from a revised rate of 45.8% in 2000. The amount of paper recovered in 2001 held steady at 47.3 million tons. The total volume of paper landfilled in 2001 declined by 4.6 million tons. In a year that the paper industry saw a decline in production and consumption, it was able to maintain a high paper recovery rate.

Recovery was strongest for newspapers (78.4%) and closely followed by old corrugated containers (75%). Recovery of mixed paper also rose steadily, climbing by 6.6% to 8.9 million tons. The recovery rate of printing-writing papers held steady. Paper and paperboard packaging also represents about 75% of all the packaging recovered for recycling.

The paper industry continues to depend heavily on recovered fiber as a raw material. In 2001, 36.8% of the fiber used at U.S. paper mills was recovered fiber.

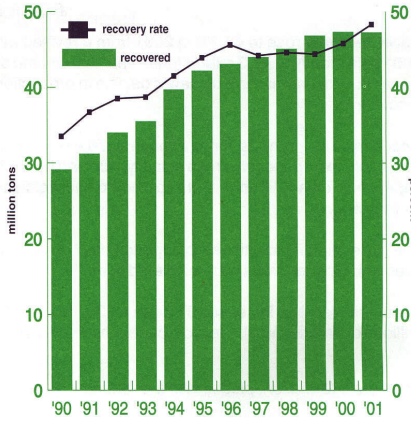
Paper recovery has increased 97% since 1987 when the recovery rate was 28.8%. The continued commitment of millions of Americans who recycle paper ensures a strong future for paper recovery.

For more information, please visit the American Forest & Paper Association web site at **www.afandpa.org**.

Paper & Paperboard Recovery

- Paper and paperboard recovery climbed to 48.3% in 2001 from 45.8% in 2000.

- This represents 47.3 million tons of fiber recovered in 2001. The paper industry continues a strong and steady pace towards achieving its goal to recover 50% of all U.S. paper.



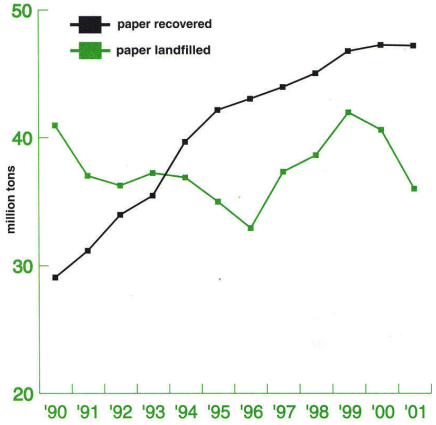
Paper & Paperboard Recovery

	Supply	Recovered	Recovery Rate
	(000 tons)		
1990	86,796	29,112	33.5%
1991	85,071	31,201	36.7%
1992	88,273	33,954	38.5%
1993	91,538	35,460	38.7%
1994	95,718	39,691	41.5%
1995	96,036	42,189	43.9%
1996	94,495	43,076	45.6%
1997	99,542	43,989	44.2%
1998	101,139	45,076	44.6%
1999	105,557	46,818	44.4%
2000	103,192	47,311	45.8%
2001	97,911	47,252	48.3%

"Supply" includes consumption of all paper, corrugated and paperboard, including construction paper and board. "Recovery Rate" is the ratio of total paper, corrugated and paperboard recovered to supply.

Paper Recovery vs. Landfilling

◆ More paper continues to be recovered than landfilled. In 2001, there was another strong decline in paper going to landfill—from 40.6 million tons in 2000 to 36 million tons in 2001. The amount of paper recovered held steady at 47.3 million tons.



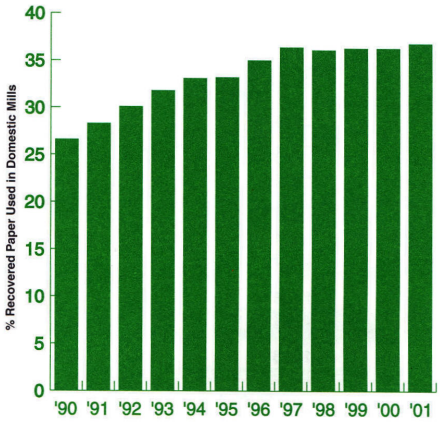
Paper Recovery vs. Landfilling

	Paper Recovered (000 tons)	Paper Landfilled
1990	29,112	40,969
1991	31,201	37,018
1992	33,954	36,256
1993	35,460	37,241
1994	39,691	36,889
1995	42,189	34,995
1996	43,076	32,936
1997	43,989	37,339
1998	45,076	38,630
1999	46,818	41,987
2000	47,311	40,624
2001	47,252	36,014

Results based on data from various sources and calculated by the American Forest & Paper Association.

Uses of Recovered Fiber

◆ In 2001, 36.8% of the fiber used at U.S. paper mills was recovered fiber—up from 36.3% in 2000. This increase demonstrates the paper industry's continued dependence on recovered fiber as a raw material to manufacture tissue, copy paper, newsprint, boxboard, corrugated containers, and other products.



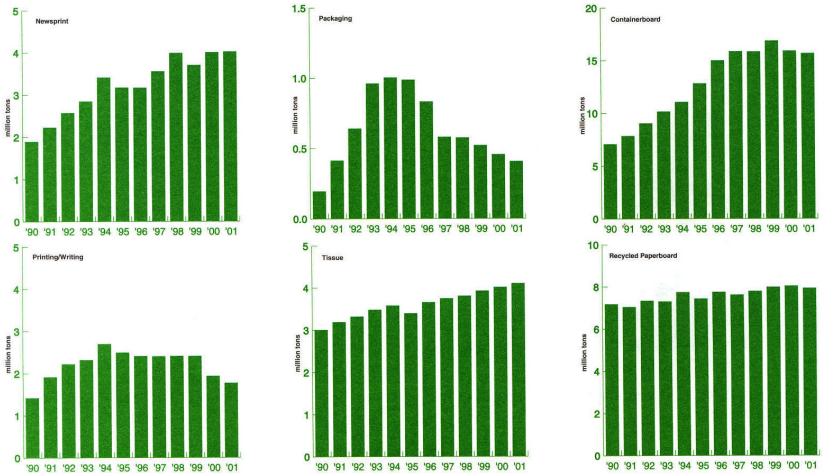
Uses of Recovered Paper

	Consumption of Recovered Paper at Paper & Paperboard Mills	Consumption of Recovered Paper for Other Uses	Exports	Imports	Total Recovered
1990	21,736	994	6,505	123	29,112
1991	23,662	1,063	6,598	122	31,201
1992	26,185	1,137	6,782	150	33,954
1993	28,011	1,216	6,371	138	35,460
1994	30,670	1,300	7,974	253	39,691
1995	31,389	1,390	9,908	498	42,189
1996	33,979	1,487	8,084	474	43,076
1997	35,209	1,590	7,882	693	43,989
1998	35,770	1,700	8,117	511	45,076
1999	36,727	2,000	8,517	426	46,818
2000	35,447	2,200	10,272	608	47,311
2001	34,935	2,200	10,445	328	47,252

*Beginning in 1992, U.S. exports of recovered paper to Canada are based on data compiled by the Paper Recycling Association of Canada.

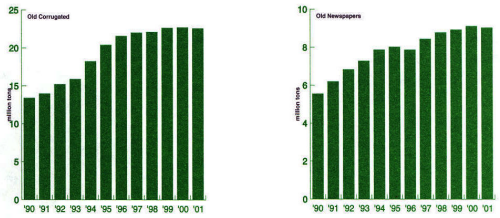
† Data revised based on updated study of recovered paper use outside the paper industry.

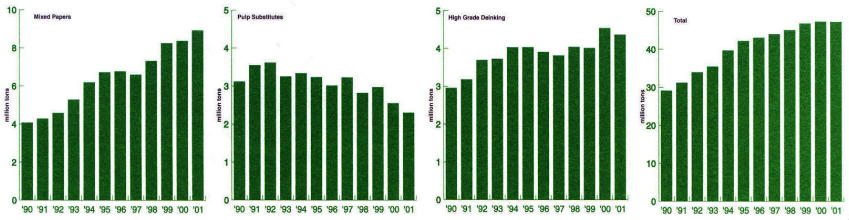
The following tables illustrate the amount of recovered fiber U.S. mills use to manufacture various types of paper.



Recovery of Paper & Paperboard by Grade

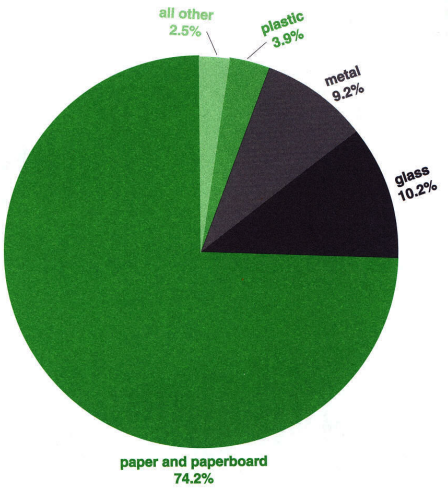
◆ In 2001, recovery of all paper grades held relatively steady. There was, however, growth of about 6.6% in recovery of mixed papers—8.9 million tons in 2001, up from 8.4 million tons in 2000.





Packaging Recovery

Paper retains its strong hold as the most recovered packaging material. Paper and paperboard packaging represents close to 75% of all the packaging recovered for recycling.



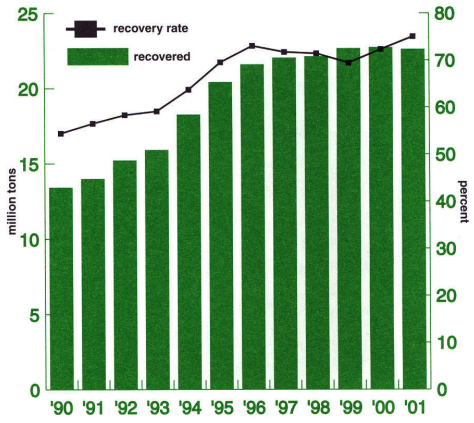
Packaging Recovery

Packaging	Millions Tons Recovered	Share of Total
Paper and Paperboard	21.0	74.2%
Glass	2.9	10.2%
Metal	2.6	9.2%
Plastic	1.1	3.9%
All Other	0.7	2.5%
Total	28.3	100%

Source: Franklin Associates, Ltd. (1999 data).

Recovery and Use of Old Corrugated Containers

◆ Along with old newspapers, recovery of old corrugated containers leads the way in paper recovery. In 2001, grocers and other retailers helped the industry recover 75% of old corrugated. This represents a consistent rise from 69.4% in 1999 and 72.3% in 2001.



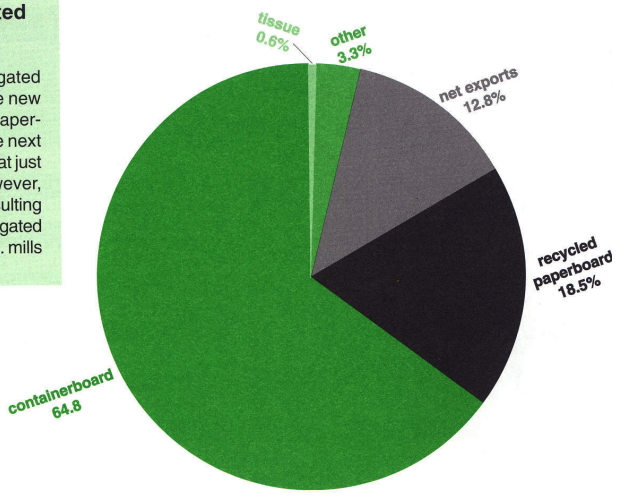
Recovery and Use of Old Corrugated Materials

	At Paper and Paperboard Mills	Net Exports	Total	Total Containerboard Supply	Recovery Rate
		(000 tons)			
1990	10,688	2,720	13,407	24,657	54.4%
1991	11,248	2,738	13,986	24,741	56.5%
1992	12,532	2,687	15,219	26,088	58.3%
1993	13,562	2,338	15,900	26,894	59.1%
1994	15,009	3,240	18,249	28,658	63.7%
1995	16,513	3,894	20,407	29,368	69.5%
1996	18,732	2,847	21,579	29,557	73.0%
1997	19,641	2,381	22,022	30,724	71.7%
1998	19,530	2,582	22,112	30,972	71.4%
1999	20,457	2,189	22,646	32,634	69.4%
2000	19,968	2,750	22,718	31,433	72.3%
2001	19,713	2,891	22,604	30,130	75.0%

"Old Corrugated" includes corrugated containers, container plant cuttings, kraft bags, etc. "Recovery Rate" is the ratio of total OCC recovered to containerboard supply.

Where Old Corrugated Containers Go

Nearly 65% of old corrugated containers are used to make new containerboard. Recycled paperboard manufacturers are the next largest domestic consumers at just over 18%. Net exports, however, increased slightly in 2001 resulting in a smaller share of old corrugated containers being used at U.S. mills overall.



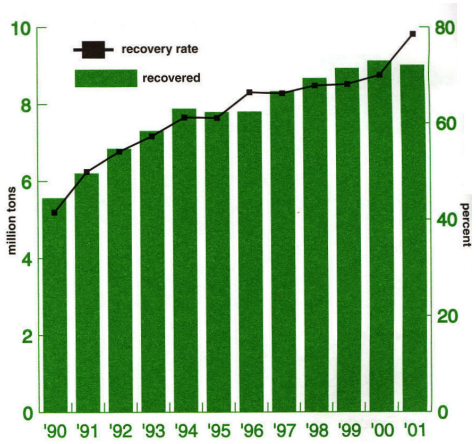
Where Old Corrugated Goes

	Consumption of Old Corrugated by End Use (000 Tons)	Share of Total (2000)
Containerboard	14,653	64.8%
Recycled Paperboard	4,180	18.5%
Tissue	138	0.6%
Printing-Writing	–	–
Newsprint	–	–
All Other	742	3.3%
Net Exports	2,891	12.8%
Total	**22,604**	**100%**

"Old Corrugated" includes corrugated containers, container plant cuttings, kraft bags, etc. "Recovery Rate" is the ratio of total OCC recovered to containerboard supply.

Recovery and Use of Old Newspapers

◆ Recovery of old newspapers rose to 78.4% in 2001 from approximately 70% in 2000. This dramatic increase is largely due to the drop in supply of old newspapers, 1.5 million tons in 2001, while recovery remained strong.



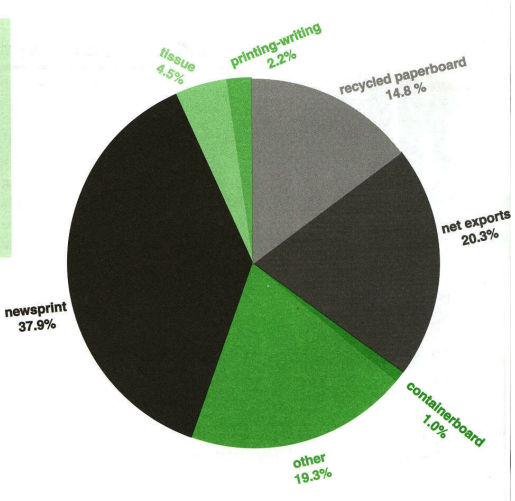
Recovery and Use of Old Newspapers (ONP)

			Use of Old Newspapers			
	At Paper and Paperboard Mills	For Molded Pulp and Other Uses	Net Exports* (000 tons)	Total	Total Newsprint Supply	Recovery Rate
1990	3,812	746	998	5,556	13,412	41.4%
1991	4,295	797	1,109	6,201	12,462	49.8%
1992	4,522	853	1,465	6,840	12,658	54.0%
1993	4,670	912	1,714	7,295	12,749	57.2%
1994	5,090	975	1,816	7,881	12,889	61.1%
1995	4,885	1,043	1,862	7,789	12,762	61.0%
1996	4,977	1,115	1,706	7,798	11,769	66.3%
1997	5,273	1,192	1,867	8,333	12,599	66.1%
1998	5,311	1,275	2,081	8,667	12,802	67.7%
1999	5,243	1,500	2,187	8,930	13,137	68.0%
2000	5,512	1,650	1,954	9,116	13,039	69.9%
2001	5,553	1,650	1,835	9,038	11,530	78.4%

*Note: If printing/writing papers used for newspaper inserts are factored into old newspaper potential supply then the recovery rates for old newspapers were 60.7% in 2000 and 66.6% in 2001.

Where Old Newspapers Go

◆ ONP is used to produce a variety of new products, but more than 37% goes directly back into new newsprint. A significant amount—20%—is exported, while 14.8% is made into recycled paperboard.



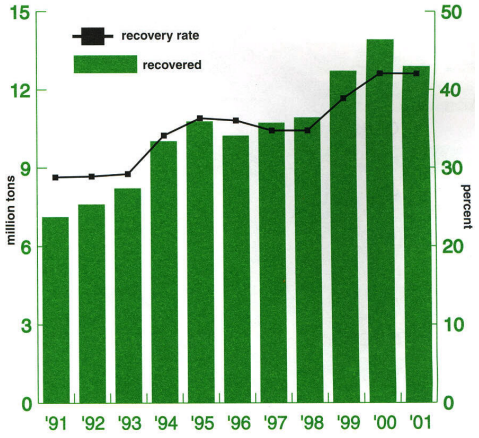
Where Old Newspapers Go

Consumption of Old Newspapers by End Use (2000)

	Tons (000)	Share of Total
Containerboard	93	1.0%
Recycled Paperboard	1,335	14.8%
Newsprint	3,421	37.9%
Tissue	409	4.5%
Printing/Writing	198	2.2%
All Other	1,747	19.3%
Net Exports	1,835	20.3%
Total	**9,038**	**100%**

Recovery of Printing/Writing Papers

- Recovery of printing-writing papers held steady at 42.1% in 2000 and 2001, a strong rise from 38.9% in 1999.



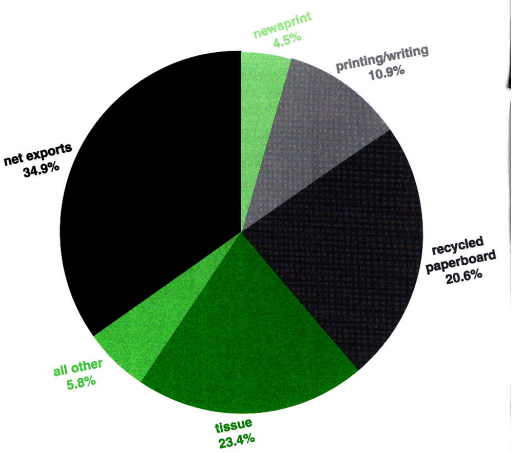
Recovery of Printing/Writing Papers

	Printing-Writing Paper Supply	Total Recovered	Recovery Rate
		(000 tons)	
1991	24,650	7,120	28.9%
1992	26,205	7,600	29.0%
1993	27,959	8,205	29.3%
1994	29,444	10,070	34.2%
1995	29,550	10,770	36.4%
1996	28,300	10,221	36.1%
1997	30,751	10,710	34.8%
1998	31,384	10,910	34.8%
1999	32,616	12,696	38.9%
2000	33,078	13,913	42.1%
2001	30,654	12,891	42.1%

"Recovery Rate" is the ratio of total printing-writing papers recovered to supply. Source: Franklin Associates and the American Forest & Paper Association.

Where Printing/ Writing Papers Go

◆ A growing share—nearly 35%—of printing-writing papers is being exported. There was also a modest increase in the use of printing-writing papers for tissue and paperboard.



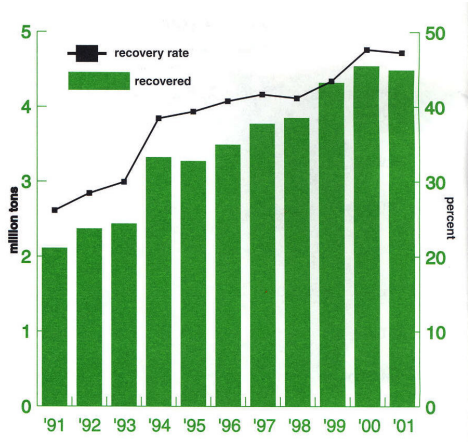
Where Recovered Printing/Writing Papers Go

Consumption of Printing/Writing Papers by End Use (2000)	Tons (000)	Share of Total
Newsprint	580	4.5%
Printing/Writing	1,400	10.9%
Tissue	3,010	23.4%
Recycled Paperboard	2,650	20.6%
All Other	750	5.8%
Net Exports	4,500	34.9%
Total	**12,890**	**100%**

"Generation" includes supply of office-type and other printing-writing papers in offices. Source: Franklin Associates, Ltd. and the American Forest & Paper Association.

Recovery of Office Papers

◆ Recovery of office papers remained about the same at 47.2% in 2001. This represents more than a doubling since 1990 when 19.9% of office paper was recovered. Office paper recovery continues to be an area where the industry sees an opportunity for growth.



Recovery of Office Papers

	Generation	Total Recovered	Recovery Rate
	(000 tons)		
1991	8,070	2,110	26.1%
1992	8,335	2,370	28.4%
1993	8,140	2,435	29.9%
1994	8,640	3,320	38.4%
1995	8,330	3,270	39.3%
1996	8,570	3,490	40.7%
1997	9,060	3,770	41.6%
1998	9,360	3,850	41.1%
1999	9,960	4,320	43.4%
2000	9,540	4,545	47.6%
2001	9,510	4,490	47.2%

"Generation" includes supply of office-type and other printing/writing papers in offices. Source: Franklin Associates,Ltd. and the American Forest & Paper Association.

FIBER DEFINITIONS

Primary Fibers: Fibers contained in wood pulp manufactured from roundwood bolts and logs (4 feet or longer, including tree lengths) brought to the pulpmill for chipping, or chips made from primary roundwood bolts and logs at a chipmill, remote from papermill.

Wood Residues: Mill residues such as slabs, edgings, trimmings, cores, planer shavings, sawdust, or other wood residues of a wood manufacturing process and chips made from these residues. Also logging residues such as portions of bolts or logs less than the minimum diameter specified by the consuming mill and poles, saplings, slash, limbs, twigs, or portions of bolts or logs not regarded as merchantable in normal pulpwood or sawlog operations. May also include merchantable portions of trees that will not be used for higher-value products. Chips made from forest residues.

Reclaimed Fibers: Fibers contained in wood pulp manufactured from wood residues and recovered paper.

Recovered Papers: Definitions are abstracted from the Institute of Scrap Recycling Industries' (ISRI) Scrap Specifications Circular 1994. The 51 grades and 33 specialty grades in this circular have been condensed in the groupings listed below:

Mixed Papers: Mixed papers, super mixed papers, office papers (if not deinked or of suitable quality to be used as a pulp substitute), magazines and catalogs, telephone directories, recycled boxboard cuttings, tissue paper converting scrap if predominantly composed of recycled fiber, mill wrappers, specialty grades and all other grades not elsewhere specified. ISRI grades 1-5, 10, 22, 23, 27 and 1S-33S.

Newspapers: Old newspapers, special news (including deink quality), over issue news, white blank news, groundwood computer printout, publication blanks, mixed groundwood and flyleaf shavings, and coated groundwood sections. ISRI grades 6-9, 24-26, 44.

Corrugated: Old containers both corrugated and solid fiber, container plant cuttings, kraft paper and bags, kraft bag clippings, carrier stock and carrier stock clippings. ISRI grades 11-21.

Pulp Substitutes and High Grade Deinking: Includes bleached chemical grade office papers and computer printouts to be deinked or of suitable quality to be used as a pulp substitute, bleached sulfite and sulfate cuttings including tissue paper converting scrap if predominantly composed of bleached chemical pulp fiber, and coated book stock. Print free grades are reported as Pulp Substitutes and printed grades, if deinked, are reported as High Grade Deinking. ISRI grades 28-43, 45-51.

STATEMENT OF DARRYL YOUNG, DIRECTOR, CALIFORNIA STATE DEPARTMENT OF CONSERVATION

Mr. Chairman and members, thank you for inviting me to testify on the State of California's Beverage Container Recycling and Litter Reduction Program (Program). I appreciate the opportunity to provide an overview of the California Recycling Program and the various features of our program that differentiate it from recycling programs administered by other States in the Union.

California Recycling Program Overview

The Division of Recycling within the California Department of Conservation (Department) administers the Program. The Program was created by the passage of the California Beverage Container Recycling and Litter Reduction Act (Act) in 1986. Its purpose is to make beverage container recycling integral to the California economy. The Department's primary goal is to achieve and maintain a recycling rate of 80 percent for each beverage container type included in the Program, thereby reducing the beverage container component of litter in California. Units within the Department's Division of Recycling are responsible for participant certification and registration, regulatory compliance, grant funding distribution, as well as technical and educational assistance to other industries and groups involved in beverage container recycling.

The California Program is unique among the States that have a beverage container recycling system. In other bottle deposit States, the cans and bottles are returned to the store from which the containers were purchased. Californians enjoy a more convenient form of container recovery with nearly 3,000 recycling opportunities statewide. The recycling system in California provides a convenient and efficient way to recycle beverage containers, and also is used as a source of non-tax dollar funding of various recycling and litter reduction programs throughout the State.

The Program involves participants from private industry such as buy-back recycling centers (offering payment to consumers for recycling), drop-off recyclers (such as curbside programs), beverage manufacturers, beverage distributors, and retail dealers. Public and semi-private entities like local conservation corps and non-profit organizations also help achieve the Program's goal of providing Californians convenient opportunities to recycle their beverage containers.

The California Redemption Value (CRV) and the way the State administers those CRV funds is the engine of California's beverage container recycling program. Consumers pay this CRV when they purchase a beverage container of any type or brand. That CRV deposit is refunded to the consumer when they recycle the container. Similarly, CRV is provided to the curbside program or other drop-off program that may recycle the container. The CRV is two-and-a-half cents per container under 24 ounces in volume and 5 cents for containers 24 ounces in volume or larger. Unredeemed funds—that is, when consumers or curbsides don't recycle and collect the deposit on a container—help support various components of the Program which help promote higher recycling rates. The Program's goal is 80 percent recycling rate for all aluminum, glass, plastic, and bimetal beverage containers sold in California.

California's Program continues to grow and change. When the Program began, only soft drinks, beers, wine and distilled spirit coolers and some limited carbonated fruit drinks were included in the redemption system. In 1999, Governor Gray Davis signed into law the largest recycling program expansion of any State in the Nation, increasing by three (3) billion the number of containers Californians can recycle under the Program. The expansion added non-carbonated fruit drinks, coffee and tea drinks, non-carbonated water, and sport drinks. In addition, CRV was applied to beverages sold in all of the seven plastic resin types. As of January of 2001, Governor Gray Davis and the Legislature added still other beverages, specifically vegetable juices in beverage containers of 16 oz. or less.

The changes effective in January of 2000, combined with normal growth in beverage sales volumes, increased the total beverage container sales from 1999 to 2000 by 25 percent. Total sales for all material types exceeded 16.5 billion in 2000. The addition of vegetable juices, combined with normal growth in sales, resulted in an additional 6 percent increase over 2000 with total sales from beverage containers reaching 17.5 billion beverage containers. While recycling rates in California under the Program have been as high as 82 percent, recent rates have been lower. The addition of new beverage containers to the system provides the most obvious reason for the recent rate decline. This immediate addition on January 1, 2000 of containers sold under the Program has not yet been matched by an increase in the number of containers recycled by consumers. Significantly, though, the total volume of material recycled has increased every year since 2000.

Fundamental Differences—California vs. Other States

Three fundamental tenets of the California Program set it apart from other States' programs. California has a centralized deposit fund, administered by the State for the benefit of consumers, private industries, and semi-private/public entities participating in the Program. California makes a concerted effort to create and promote convenient recycling opportunities. The Program seeks to use existing private recycling industries—and promotes new recycling modes—to offer consumers convenient places to recycle. California law also creates a Manufacturer or Producer Responsibility for the recycling of certain material types. Here the goal is to help internalize the cost of recycling and ensure that cost is covered when a material type's inherent scrap value isn't enough to drive the recycling of a material type.

Statewide Deposit Fund

California's Program centers around the Beverage Container Recycling Fund. Distributors of beverages pay an amount equal to the CRV for each container they sell to a California retailer or dealer. The State pays that CRV deposit back to recyclers, via processors, for each container they collect from a consumer. In the case of the recycler, the State compensates the recycler for a prior payment of CRV to a consumer. The Department has the duty of collection and payment of these CRV funds, as well as auditing the records of the distributors and recyclers who pay CRV moneys to, and receiving CRV moneys from, the State.

This method of collecting the CRV from consumers and paying them back for recycling is virtually transparent to the consumer. Consumers pay the CRV at the check-stand when they purchase beverages, seeing only that CRV was included but seeing none of the collection mechanism. When they recycle or "redeem" their containers, an equal amount of CRV is returned to them. Again, how the recycler gets funds is transparent and the consumer is not required to sort containers by manufacturer or by store-of-purchase. In some cases, consumers are even offered an addi-

tional amount of "scrap value" from the recycler. While this isn't required by law, many recyclers opt to pay some of the scrap value to induce consumers to frequent their recycling center. Most commonly, recyclers pay some scrap value for aluminum cans, largely due to the traditional and relatively high scrap value for aluminum.

This method of collecting CRV and distributing it when containers are recycled carries an additional benefit beyond being transparent and easily facilitating consumer participation in recycling. The State-run deposit is also more efficient and less labor-intensive than a traditional bottle bill. California's Program mixes the deposits on all containers. This frees retailers from handling the deposits on containers they sell. It also allows retailers to operate like retailers and doesn't force them into the role of "recycler," as well. This system also benefits private industry recyclers. Recyclers do not have to track individual manufacturer's containers through the recycling system. Recyclers are principally interested in one factor—weight—and not which manufacturer actually made the container or the product that was in the container. Under the California Program, recyclers collect containers from consumers based on individual counts, but more often collect by weight. Reporting and claims are done based on weight.

Lastly, California's deposit system allows an accurate accounting of recycling rates. Actual volumes of containers sold in California are reported with the payment of CRV by distributors. Verifiable volumes and numbers of containers recycled are reported as claims for payment from the Recycling Fund. These values are audited regularly by the State to ensure accuracy of payment to and from the Program fund. Knowing actual numbers helps provide reliable recycling rate figures. This compares quite favorably to other deposit States where the reported numbers of sold and returned containers may be based on anecdote and are not verifiable.

Convenient Recycling Opportunities

Unlike traditional bottle bill States, California does not mandate redemption of containers inside actual retail establishments. However, consumers must be able to reclaim the deposits they made on containers. If those deposits aren't readily reclaimable, Program founders believed the deposit might actually be construed as a tax, which it is not. The Program relies on participation by a number of types of private industry recyclers to provide these convenient recycling options. The State does not operate recycling centers, but provides funds and incentives for businesses to operate recycling centers.

A recycling infrastructure already existed on some level before the program was established. Most recyclers were located in scrap yards, often found in heavy commercial-and industrial-zoned areas. Some recyclers operated recycling kiosks near retailers, though they mostly accepted only aluminum containers. With the advent of the Program, though, a retailer must ensure that a recycler is operating within a half mile "convenience zone" of that retailer, if the retailer grosses a significant and specified volume of annual sales. Failure to have such a recycler located within half mile has consequences. Retailers in that "convenience zone" can be required to take-back and pay deposits on containers inside their stores if a convenience zone is not served by a recycler.

The Program helps develop these "convenience zone recyclers" by offering subsidies to cover the unique costs of providing a convenient recycling opportunity near retailers. The Program also offers subsidies to curbside recycling centers to promote use of curbside recycling. Over its life, the Program has proven quite adaptable in assisting varied types of recycling operations create more consumer recycling convenience.

Significant to the consumer convenience model, a recycler seeking to offer consumers redemption value for their recycled containers must redeem all material types. Absent this mandate, some recyclers might choose to only accept aluminum recycled containers. This is because aluminum has a scrap value that exceeds the cost a recycler incurs to "recycle" it. That is, a recycler will get more in scrap value from a processor of aluminum containers than it will cost the recycler to collect, sort, and deliver those aluminum cans to the processor. The same is not true for glass and plastic, materials whose cost of recycling almost always exceeds the scrap value paid to a recycler.

This requirement that certified recycling centers accept all material types ensures that convenience of recycling isn't simply a matter of location. A consumer visiting a single recycler can redeem all of their material types at one time. While this mandate to accept all material types might appear to force recyclers to engage in revenue-losing business practices, California's Program takes those potential losses into account and provides a Processing Payment to ensure recyclers do not lose money by participating in the Program.

Manufacturer/Producer Responsibility

As noted above, some material types in the California Program do not "pay their way" through the recycling stream. That is, the inherent value of the material of the beverage container (the "scrap value") is insufficient to pay for the costs associated with collecting, handling, storing, and transporting (the "cost of recycling") that beverage container material. When this occurs for a container material type, California's Program imposes a Processing Fee on the beverage manufacturers who choose to package in that material type.

The Department determines the need for a Processing Fee by conducting surveys of recyclers' actual costs of recycling and the scrap values received by recyclers. The difference between the scrap value and the cost of recycling is calculated on a per container basis and this amount, per container, becomes the Processing Payment due to a recycler. Processing Payments are made to recyclers at the same time reimbursement for CRV paid to consumers is made.

Processing Fees are collected from manufacturers to pay Processing Payments to recyclers. The Department calculates the amount of Processing Fee due from the beverage manufacturer using statutory guidelines for survey methodology and for some cost values. In 1992, the State reduced the Processing Fees collected to reflect the fact that only a fraction of the containers sold by manufacturers are actually recycled. The intent of the change was to eliminate surplus Processing Fee collections, though opponents of that provision now argue that it served to induce lower recycling rates (lower recycling rates equated to a lower Processing Fees). Since 1996, the Program has further reduced the amount of Processing Fee paid by beverage manufacturers with subsidies of moneys from unredeemed CRV deposits.

CALIFORNIA RECYCLING PROGRAM CHALLENGES

Fraud

With a program as large and complex as California's, some potential for fraud is bound to exist. Re redemption can be a problem. Containers each have ONE deposit paid to the Recycling Fund when the container is sold to a consumer. However, an unscrupulous person can seek to re-redeem a post consumer container, collecting a deposit on the same container or containers multiple times. Importation of out-of-State containers is another potential avenue of fraud. No deposit is paid into the California system on a container sold in Arizona or another neighboring State. Once shipped to California, though, the containers can be difficult to distinguish from legitimate California bottles and cans.

The Department, working with local, State, and Federal law enforcement, has intercepted several schemes to defraud the Recycling Program. Truckloads of imported materials have been intercepted at the border and in-State. Department investigators have found warehouses of imported containers. The Department has had notable successes combating fraud, but must continue to pursue cases on a regular basis. The Department does this to ensure the integrity of the Recycling Program and the Recycling Fund and to help maintain a fair, competitive environment for legitimate recyclers who might otherwise be forced to compete with recyclers enjoying unfair and illegal advantage by committing fraud.

Level of Manufacturer Responsibility

When initially conceived, the California Program offered no subsidy to manufacturers for the Processing Fee. Since 1996, the unredeemed CRV in the Recycling Fund has been used to reduce the amount manufacturers would otherwise pay in Processing Fees. More recent discussions of the Processing Fee now revolve around the amount of subsidy that will be offered to further reduce the proportion of the Processing Payment to recyclers that manufactures pay as a Processing Fee. The Department has noted that using nothing but unredeemed CRV deposits and relying on no contribution from manufacturers could cause the Program to bankrupt itself and be unable to pay consumers back their deposits. Avoiding that problem requires acceptance of a lower recycling rate goal than is currently expected (80 percent).

Accurate Reflection of Recycling Markets

Originally, Processing Fee/Payment calculations of scrap value and cost of recycling were conducted annually. Changes in the Recycling Program in recent years have attempted to fix either cost of recycling, scrap value, or both in statute. However, these values change as cost factors and markets change. Recyclers have, in some cases, been forced to lose money when Processing Payments don't match real need to remain viable in the Program by redeeming all container types. To ensure the Processing Fee/Payment system remains viable, surveys of scrap value and cost must be conducted regularly to reflect market changes, not negotiated compromises.

Additionally, what is counted in evaluating the cost of recycling or scrap values can negatively impact survey results. For instance, counting PVC plastic contamination as a reduction in the scrap value of loads of PET plastic could result in a surveyed lower scrap value for PET, resulting in a higher PET Processing Fee when the problem actually originated from the PVC. The current Program has difficulties in accounting for this kind of contamination.

Addition of New Containers

California recently added millions of new beverage containers to its Recycling Program. The addition of these containers to the CRV system did not result in an immediate increase in recycling rates, however. Educating consumers that these containers are now part of the Recycling Program remains a significant challenge to the Department. One difficulty in educating consumers about the California Program remains differentiating between the container's material type and what was packaged in the container. California's Program defines whether a container is "in" the Program or not by what was packaged in that container. The glass in a jar holding mayonnaise or some other product is essentially identical to the glass containing sparking water, yet the water bottle is included in the Program and the other jar is not. This difference creates consumer confusion and, notwithstanding the addition of millions of new beverage containers, remains one of the California Program's biggest hurdles.

CONCLUSION

California's Beverage Container Recycling and Litter Reduction Program is unique among the States. We have experienced considerable growth over the years, and our program continues to evolve and change to meet new circumstances. Moreover, our system is one in which all participants—beverage manufacturers, retailers, recyclers and consumers alike—make valuable contributions to the program's overall success. Thank you for the opportunity to give you a brief overview of California's program. I look forward to answering any questions you may have.

California Beverage Container Recycling: How Are We Different?

	Traditional bottle bills	California
Deposit vs. Refund Value.	Retailers refund a specific deposit (usually 5 cents) for each container..	• No ''deposit''; instead, consumers receive CA Refund Value (CRV) plus may receive scrap value. • CRV originates with ''redemption payments'' paid by beverage distributors on number of containers sold; distributors may pass cost to retailers and consumers. • Recyclers generally redeem by weight, instead of count. • CA has lowest ''deposit'' of all U.S. States (2.5 cents for <24 oz. and 5 cents for 24 oz. or more).
Recycling Centers and Convenience Zones.	Consumers return containers to retail stores. Containers are sorted by brand..	• Independent recyclers, rather than retail stores, receive empties and pay refunds to consumers. • All brands are commingled. • Network of Convenience Zones (CZ) provides consumers with convenient access to recyclers. (Area within half-mile of a supermarket with $2 million in sales constitutes a CZ; recycler generally must serve zone or store must redeem containers.) • Recyclers must certify with Department of Conservation (DOC)..
State Fund Administration.	Program moneys usually remain in private hands; manufacturers and retailers administer program..	• Beverage manufacturers and distributors pay directly into Fund monitored by DOC. After consumers redeem empties, DOC releases moneys from Fund to processors and recyclers. • DOC prevents fraudulent redemption, monitors compliance, oversees Convenience Zones, certifies recyclers and processors, conducts market research. • Statewide recycling data are more comprehensive and verifiable, because DOC doesn't release funds until auditable reports are submitted.

California Beverage Container Recycling: How Are We Different?—Continued

	Traditional bottle bills	California
Use of Unclaimed Funds.	Beverage companies keep unclaimed deposits (except MI and MA)..	• Refunds unclaimed by consumers are controlled by State. • Unclaimed funds are reinvested in specific recycling activities, including program administration, fees to recyclers, local recycling grants, market development, technical assistance, outreach and education. • Unclaimed refunds also offset Processing Fees (below).
Producer Responsibility: Processing Fees.	Producers' financial obligations are limited to administering the program and reimbursing retailers for their costs..	• Beverage manufacturers pay Processing Fees (PF—difference between scrap value of each material and actual cost to recycle that material) to DOC. • DOC distributes Processing Payments to processors, who, in turn, pass them to recyclers. • Processing Fees help ensure returned containers actually will be recycled by paying recycling costs up front. Goal is to help recycling industry recycle materials when actual cost of handling, processing, storing, and transporting containers exceeds value of material. • Each material ''pays'' its own way; aluminum is worth more, so has no PF.
Producer Responsibility: Minimum Recycled Content.	Mainly address the supply side of recycling (collection of containers)..	• Program also addresses demand side (use of materials): glass container manufacturers must use 35 percent recycled glass. • Other CA laws require minimum recycled-content for fiberglass (30 percent) and rigid plastic packaging (25 percent content is one option for compliance).
Expanded Beverage Types.	Typically cover beer and soft drinks (except Maine)..	• CA expanded in 2000 to include still water, coffee and tea drinks, sport drinks and others. Currently about 16 billion containers total per year.
Curbside Programs Share Redemption Funds.	Curbside collection programs usually do not share redemption payments due to high cost of sorting by brand..	• Local curbside programs receive CRV based on proportion of all CRV containers collected (the ''commingled rate''). • Also receive supplemental payments from Fund to defray costs, as well as population-based block grants.

STATEMENT OF EDWARD BOISSON, BOISSON AND ASSOCIATES

I am honored to present this testimony to the Senate Committee on Environment and Public Works, and I thank Senator Jeffords for calling this important hearing. More than ever, we need a solution to the beverage container waste problem that includes a fair, efficient and effective system of producer responsibility, and after 30 years of deadlock among the stakeholders, leadership such as that provided by Senator Jeffords is badly needed.

I am Edward Boisson, a consultant with 14 years experience evaluating, developing and implementing materials recycling policies and programs with the government, industrial and non-profit sectors. Last year, on behalf of Businesses and Environmentalists Allied for Recycling, a project of Global Green USA, I facilitated a dialog among beverage container recycling stakeholders including representatives of Coca-Cola North America, Waste Management, Inc., Tomra North America (a major recycling company), Beaulieu of America (a major carpet producer using recycled plastic as raw material), State and local government, environmental organizations and many others. Even though the participants held strongly opposing views, they were able to agree on many of the facts about the benefits, costs and comparative effectiveness of existing U.S. beverage container recycling programs as well as trends affecting recycling rates. My testimony is largely based on the final report from this project, entitled Understanding Beverage Container Recycling: A Value Chain Assessment Prepared for the Multi-Stakeholder Recovery Project, prepared

by a team of well-known, experienced consultants and jointly released by the project participants.[1]

I was asked to provide information to assist in evaluating the concept of producer responsibility as specifically applied to the beverage industry, and I will try in my comments to honor the mutual trust and respect developed during the MSRP project. I have three main points to offer. First, there is in fact a serious beverage container waste problem, and there are well-documented, compelling economic and environmental reasons for solving it. Had the 114 billion beverage containers disposed in 1999 been recycled, for example, it would have saved the energy equivalent to 27.4 million barrels of oil and decreased greenhouse gas emissions by 4.8 million metric tons carbon equivalent, while fueling a plastics recycling industry in need of new raw material resources.[2] But unfortunately, recycling rates for all container types are heading down, not up. My second point is that many stakeholders agree about both why rates are declining and the ingredients of a long-term solution, such as the need for financial incentives, a stable funding source and new collection services targeting beverage containers wherever they are consumed. My third and final point is that experience with existing programs shows that new initiatives should be able to significantly increase recovery at relatively low unit costs, while addressing many of the concerns raised by industry and others. Optimized deposit systems such as the program called for in S. 2220, for example, can achieve very high recycling rates and, if maximum innovation is allowed, have the potential to operate very efficiently. The MSRP report shows, for example, that the net operating costs for traditional deposit systems can be reduced from 2.21 cents per container recovered to as little as 0.55 cents through innovative design. Concerns to be addressed include the need for market development and the need to design funding mechanisms and implementation strategies that treat all companies fairly. Non-deposit based systems that include a long-term, stable funding mechanism may have the potential to increase recovery rates, though not nearly as high as deposit systems. And, although strengthening municipal programs is beneficial, it is not likely to yield significant results because of their limited scope. I expand on these points below.

THE BEVERAGE CONTAINER WASTE PROBLEM AND THE ECONOMIC AND ENVIRONMENTAL REASONS FOR SOLVING IT

Beverage containers may be the single most ubiquitous and visible form of waste in our society. In 1999, for example, over 192 billion pre-packaged beverages were sold and over 114 billion beverage containers were disposed.[3] Recycling these disposed containers would have saved the energy equivalent of 27.4 million barrels of oil, reduced greenhouse gas emissions by 4.8 million metric tons carbon equivalent, saved over 41 million cubic yards of landfill space and removed approximately 1 billion containers from roadside litter.[4] (Exhibit One lists estimated environmental benefits associated with beverage container recycling in 1999.) Recycling beverage containers has significant economic benefits too. Recovered containers are needed to fuel investment and job growth in the currently stagnant plastics recycling industry that is seeking new long-term, stable sources of quality raw material. Recycling collection activities employ a sizable number of people and each collection job supports upstream employment in processing and manufacturing.

But, as shown in Exhibit Two, recycling rates for all types of beverage containers are now steadily declining. Recycling rates for PET plastic have dropped to 22 percent from a high in 1994 of 38 percent, and rates for glass are down to 31 percent after peaking in 1995. Most disturbing, the rate for aluminum cans, long a staple of recycling programs, peaked at 65 percent recycling in 1992 and in 2000 dropped a whopping 6.5 percent to 49.2, dropping below 50 percent for the first time in many years. The overall recycling rate for beverage containers in 1999, based on the number of units, was 41 percent. In short, as a highly visible, recyclable waste stream, beverage container recycling is an integral part of a sound materials management policy that should be applied to all products, and if we don't act urgently, the huge advances achieved over the past several years may erode away.

---

[1]The report is referred to hereafter as "MSRP Final Report." The authors are R.W. Beck, Inc., Franklin Associates, Ltd., the Tellus Institute, Sound Resource Management Group and Boisson & Associates. The report is available online at www.globalgreen.org/bear.

[2]Based on data in the MSRP Final Report, Table 4–1, page 4–5.

[3]MSRP Final Report, Table 2–1, page 2–2.

[4]Based on MSRP Final Report, Table 4–1, page 4–5.

WHY RATES ARE FALLING AND THE ELEMENTS OF A LONG-TERM SOLUTION

There is a surprising amount of agreement about the causes of declining beverage container recycling rates and even over the broadly defined elements needed in any long-term solution. For example, MSRP participants agreed that the reasons for declining recycling rates include:[5]

- Beverage sales growth is dominated by plastic (with a relatively low recycling rate) at the expense of glass and aluminum (with relatively high recycling rates);
- Increasing sales of single-serve beverages that are increasingly consumed away-from-home (and away-from-recycling services);
- Increasing diversity of beverage types like water and so-called "new age" beverages (many of which may not be covered under existing recycling programs);
- The stalling of growth in new municipal programs and reduced funding available;
- The reduced relative value of deposit amounts in deposit States. Additionally, at least 20 municipalities have recently either dropped glass from their curbside programs or greatly curtailed it.[6] This is apparently a growing trend triggered by a switch to single-stream recovery systems. While they increase overall efficiency, single stream collection systems do not handle glass well because they yield low quality, low value, mixed-color broken cullet that contaminates recovered paper.

MSRP participants agreed in a joint letter releasing their final report that the following conclusions should guide future efforts to increase recovery:

- Financial incentives should be established to ensure the long-term sustainability of high recovery rates and strong markets;
- New systems should both strengthen existing programs (such as municipal curbside) and support a range of new recovery mechanisms (especially targeting away-from-home consumption); and
- New initiatives should be able to significantly increase beverage container recovery at relatively low unit costs.

Most fundamentally, because there is a net cost to beverage container recycling (since only recovered aluminum cans typically have sufficient market value to cover collection and processing costs), there is a need for a long-term, stable funding source. MSRP participants also agreed on a set of principles that guided the project, including the need for members of the supply chain to share responsibility, the need for solutions that are economically sustainable, continually improving and adaptable to changing technologies and markets.

MSRP participants also expressed some concerns that must be addressed in new systems, for example, over the need to ensure that adequate markets will exist for recovered materials, and over the need to ensure funding mechanisms and implementation approaches are fair to all companies and as efficient as possible.

EXPERIENCE WITH EXISTING PROGRAMS SUGGESTS RECOVERY CAN BE SIGNIFICANTLY INCREASED AT RELATIVELY LOW UNIT OPERATING COSTS

The MSRP Report compared the costs and effectiveness of existing U.S. beverage container recovery programs as they operated in 1999, and the results are shown in Exhibits Three and Four. The following conclusions can be drawn from these data.

Through innovation, deposit systems can achieve unit operating costs at or below most existing beverage container recovery programs

An important MSRP finding is that the operating cost of traditional deposit systems can be greatly reduced, for example, by using a centralized fund to eliminate the need for brand sorting, by eliminating the need for beverage distributors to handle recovered bottles, by relying to some degree on existing infrastructure (including independent buy-back centers and municipal programs), by using highly efficient technologies like reverse vending machines and by strategically identifying the retail locations where bottles can be returned. For example, the California deposit system that includes these mechanisms had a net operating cost in 1999 of 0.55 cents per container compared to 2.21 cents per container for traditional deposit programs that require brand sorting and rely heavily on in-store recovery.[7] (This compares with typical curbside net operating costs of 1.72 cents per container recovered.) There are legitimate concerns over the California system, and many of these could be addressed through careful design of a new, national system such as the one

[5]Trends affecting declining recycling rates are discussed in Section 2.2 of the MSRP Final Report.

[6]Resource Recycling Electronic Newsletter, April 3, 2002.

[7]Program cost estimates are from the MSRP Final Report, Table 3–1, page 3–2.

called for in S. 2220. For example, critics have charged that the unredeemed deposit funds amount to a major system cost, though unrelated to operating recycling facilities. (Unredeemed deposit revenue results from consumers' decisions not to redeem containers to receive their deposit back.) Unlike in California, industry could use these funds to directly offset its costs of operating the system in S. 2220, and depending on the recovery rate and system efficiency, these funds could potentially cover the vast majority of costs. Another concern is over the complexity and fairness of the funding mechanisms used in California. Presumably, the beverage industry could design a system that is fair to all market players and is far simpler than the California processing fee system that is regularly adjusted through legislation and litigation.

Deposit-based systems have the highest potential to significantly increase beverage container recycling

Among the existing U.S. programs, only deposit systems have all the elements of a long-term solution listed above, and the recovery rates of existing programs reflect this. Combined, the ten deposit States result in an overall recovery rate of 71.6 percent compared to 27.9 percent in non-deposit States.[8] These figures are "overall recovery rates" for all types of beverage containers, a new measure developed in the MSRP that systematically accounts for differences in the types of containers accepted and other important program differences. Most U.S. traditional deposit systems accept only carbonated soft drinks and beer and, in the study year 1999, achieved redemption rates for these container types of 72 percent—95 percent. In the MSRP study year of 1999, California's unique system achieved a somewhat lower redemption rate of 69 percent, and in the following year, after it was expanded to cover the vast majority of all beverage container types, redemption rates initially fell to 52 percent (resulting in very large surpluses of unredeemed deposits). The program called for in S. 2220, however, is likely to achieve far greater redemption rates than California, given its ten-cent deposit amount compared to California's typical deposit of 2.5 cents.[9] The only other U.S. deposit system with a ten cent deposit, in Michigan, has consistently achieved recovery rates for the container types targeted in the range of 95 percent or higher.[10] One issue that needs to be addressed in any new program to significantly increase recovery is market development, and in implementing the program the beverage industry would need to take steps to ensure that supplies increase incrementally and that actions to step up demand are taken concurrently.

Non-Deposit systems can potentially increase recovery rates, though far less than deposit-based systems. To succeed, an essential component is a long-term, stable funding source

The potential for new, non-deposit-based systems to increase the national recovery rate was explored in the MSRP, though not fully developed. As long as they include a long-term, stable funding source dedicated to beverage container recycling, they have the potential to address many of the needed elements of a long-term solution by supporting and encouraging collectors to innovate and implement new programs, thereby increasing recovery rates. However, because the incentive to consumers is not likely to be as strong or as comprehensive as a deposit system, these programs are not likely to achieve nearly as high of a recovery rate.[11] Options for funding mechanisms include assessing a fee at some point in the beverage value chain (e.g., on the sale of raw materials to container manufacturers or on the sale of beverages at the retail level).

---

[8]Program effectiveness estimates are from the MSRP Final Report, Table 2–7, page 2–19.

[9]Though not covered in the MSRP report, five Canadian provinces have implemented modified deposit systems covering virtually all beverage container types (except milk), achieving overall redemption rates of 74% to 86%. Deposit amounts are typically 10 cents (Canadian) with the exception of Saskatchewan with tiered deposits ranging as high as 40 cents (Canadian) and achieving an 86% overall recovery rate. Source: An Analysis of the Costs and Benefits of Beverage Container Recovery in Canada. Prepared by CM Consulting, January 2002.

[10]Redemption rates in US deposit systems have fallen in recent years. According to the Container Recycling Institute, this is due to the declining value of the typical 5-cent deposit, which has lost 67% of its value since the first state deposit system was adopted in Oregon in 1971. Industry sources also point to the rise of curbside recycling services in the past decade that has drawn some containers away from deposit systems.

[11]Although not evaluated in the MSRP, examples of non-deposit-based systems include the industry consortia established in European nations as required by a European Union directive. Another example is the newly developing system in Ontario, Canada in which industry will share half the net cost of municipal recycling.

Focusing exclusively on strengthening municipal recycling programs, though beneficial, is not likely to yield significant results

To date, the modest support provided by industry organizations for recovery programs has largely been focused on strengthening municipal programs. Municipal programs account for the vast majority of the average 27.9 percent recovery rate in non-deposit States, and typical net costs are 1.72 cents per container recovered. There is certainly room to decrease costs and increase recovery through efficiency measures, and such efforts are laudable. However, because curbside programs are only capable of targeting a relatively small percentage of containers and opportunities for initiating new programs may be few, these efforts are not likely to achieve significant results in terms of increasing the national recovery rate. For example, even if education and program restructuring increased participation and capture rates in existing curbside programs by 20 percent (a very aggressive goal) it would result in an overall national recovery increase of only 5.6 percent.[12] Furthermore, as mentioned above, the trend toward single stream collection is causing some municipal programs to reduce, not increase, glass beverage container collections.

CONCLUSIONS—WIN/WIN SOLUTIONS THROUGH INNOVATION

To solve the beverage container waste problem we need a win/win solution that includes a system of producer responsibility that is fair, efficient and effective. Recycling companies can win by securing new sources of raw material and new market growth opportunities. Municipalities can win by reducing their costs while increasing the overall amount of recycled materials. Federal, State and local government agencies and their citizens can win by realizing the environmental, economic and social promise of recycling beverage containers. And the beverage industry itself can win by potentially reducing their costs associated with existing systems and by resolving, once and for all, this issue that has clearly represented a thorn in its side for many years. The pre-requisite for a win-win solution is earnest innovation by companies throughout the beverage value chain, an openness to openly consider all options and a willingness to provide tangible support for recycling while working cooperatively with other stakeholders. The program called for in S. 2220 addresses all the elements needed in a long-term solution to the beverage container waste problem and provides maximum flexibility in its implementation, encouraging precisely the type of innovation and cooperation that is needed. For these reasons, it deserves careful consideration by all stakeholders in beverage container recycling.

I want to once again thank Senator Jeffords for sponsoring this important hearing and inviting me to participate. I look forward to answering your questions as best I can.

SELECT ENVIRONMENTAL BENEFITS DUE TO U.S. BEVERAGE CONTAINER RECYCLING IN 1999

	Glass	Aluminum	Plastic		Total
			PET	HDPE	
Baseline Recycling Statistics					
Recycled in 1999 (thousands of tons)	2,000	840	333	220	3,393
Reduced Greenhouse Gas Emissions					
Avoided GHG Emissions (MTCE per ton)[1]	.16	4.09	.72	.44	
Avoided GHG Emissions (Thousands of MTCE)[2]	320	3,436	240	97	4,093
Energy Savings					
Avoided Energy per Ton (Million Btu)	1.37	158.19	26.25	15.17	
Avoided Energy (Billion Btu)	2,740	132,880	8,741	3,337	147,698
Equivalent (Thousands of Barrels of Oil)[3]	472	29,910	1,507	575	32,464
Avoided Litter					
Containers Per Ton	4,581	66,225	26,702	26,702	
Avoided Litter (Millions of Containers)[4]	91.6	556.3	88.9	58.7	795.5
Avoided Landfill Space					
Volume (Cubic Yard Per ton)[5]	3.0	8.4	9.8	15.6	
Avoided LF Space (Millions Cubic Yards)	6.0	7.0	3.3	3.4	19.7

[1]Avoided GHG emissions are from the EPA's GHG Emissions From Management of Selected Materials in MSW (GHG Report). The avoided emissions per ton recycled instead of landfilled are taken from Table 8–6, adjusted to ''as marketed'' from ''as collected,'' using loss data in Table 4–3 for aluminum and plastic and a Tellus estimate for glass of 44 percent losses.

[12]Based on data from the MSRP Report, Table 2–7, page 2–19.

[2]Avoided Energy is based on the difference in energy consumption between recycled and virgin feedstock. It is based on the ''Franklin Data'' in Tables 2–3 to 2–6 of the GHG Report, adjusted for losses using Table 4–3 and a Tellus estimate for glass as above. Franklin data were used because it provided data on all four materials.

[3]Computed using 5.8 million Btu's per barrel, as shown on page 581 of the 1999 U.S. Statistical Abstract.

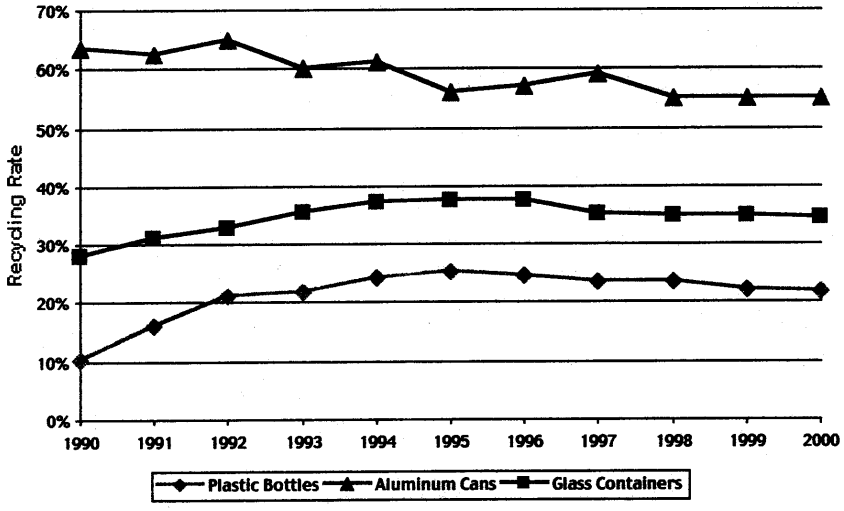
[4]Avoided Litter is based on an assumption that 1 percent of containers which are not recycled are littered. The ''1 percent litter rate'' is used for illustrative purposes.

[5]Avoided landfill space is based on loose material densities, compaction factors and a 13 percent addition for cover. This calculation was taken from the Tellus analysis used in Recycling For The Future—Consider the Benefits, White House Task Force on Recycling, November 1998.

Source: Understanding Beverage Container Recycling: A Value Chain Assessment Prepared for the Multi-Stakeholder Recovery Project.

Prepared by R.W. Beck, et al for Businesses and Environmentalists Allied for Recycling. January 2002. Table ES–2, Page ES–8. The estimates were developed by the Tellus Institute and Sound Resource Management Group as detailed in footnotes 1–5.

TRENDS IN BEVERAGE CONTAINER RECYCLING RATES



Source: Source: Aluminum Association, American Plastics Council and Glass Packaging Institute, as reported in Understanding Beverage Container Recycling: A Value Chain Assessment Prepared for the Multi-Stakeholder Recovery Project. Prepared by R.W. Beck, et al for Businesses and Environmentalists Allied for Recycling. January 2002. Table ES–1, Page ES–2.[1]

COMPARISON OF BEVERAGE CONTAINER RECYCLING PROGRAM EFFECTIVENESS AND COST

Recovery Program and Targeted States	Population in Covered States (millions)	Effectiveness Measures Uniformly Accounting for Differences in Containers Accepted and Other Variables.		Alternative Cost Comparisons (cents/ unit recovered)			Funding Responsibility
		Overall Recovery Rate[1]	Normalized Per-Capita Containers Recovered[2]	Gross Cost[3]	Net Cost (Including Material Sales Revenue)[4]	Net Cost less funds from Unredeemed Deposits[5]	
Deposit States[6].							
Traditional Deposit System (Manual).	47.7	43.1 %	295	4.07	2.67	1.26	Consumers (unredeemed deposits), beverage distributors (handling fees) & retailers

COMPARISON OF BEVERAGE CONTAINER RECYCLING PROGRAM EFFECTIVENESS AND COST—Continued

Recovery Program and Targeted States	Population in Covered States (millions)	Effectiveness Measures Uniformly Accounting for Differences in Containers Accepted and Other Variables.		Alternative Cost Comparisons (cents/ unit recovered)			Funding Responsibility
		Overall Recovery Rate[1]	Normalized Per-Capita Containers Recovered[2]	Gross Cost[3]	Net Cost (Including Material Sales Revenue)[4]	Net Cost less funds from Unredeemed Deposits[5]	
Traditional Deposit System (RVM).	47.7	18.5 %	126	2.53	1.13	(0.28)	
Weighted Average, 9 Traditional Deposit States.	47.7	61.6 %	422	3.61	2.21	0.80	
CA Redemption System.	33.9	54.5 %	373	1.62	0.55	(0.42)	Consumers (unredeemed deposits) & producers (processing fee)
Curbside	81.6	9.5 %	65	2.48	1.72	1.72	Local governments, tax payers, rate payers
Residential Drop-Off	81.6	1.6 %	11	1.10	0.30	0.30	
Other (e.g., non-residential and buybacks).	81.6	1.8 %	13	Unknown	Unknown	Unknown	Varies
Subtotal, 10 Deposit States.	81.6	71.6 %	490	2.69	1.53	0.53	
Non-Deposit States.							
Curbside[7]	199.9	18.5 %	127	2.48	1.72	1.72	Local governments, tax payers, rate payers
Residential Drop-Off	199.9	4.5 %	31	1.10	0.30	0.30	
Other (e.g., non-residential and buybacks).	199.9	4.8 %	33	Unknown	Unknown	Unknown	Varies
Subtotal, Non-Deposit States.	199.9	27.9 %	191	1.91	1.25	1.25	
Total U.S	281.4	40.6 %	277	2.32	1.39	0.88	

[1]The overall recovery rate is a measure for comparing the effectiveness of recycling programs that consistently accounts for their differences. For all programs except ''other'' the overall recovery rate is calculated by multiplying: a) the percentage of all beverage container types that are accepted in the program; b) The percent of all containers remaining after redemptions in deposit States; c) A factor to account for the generator sectors targeted (i.e., at home or away from home); d) The access rate; e) The participation and capture rate; and f) a factor to account for yield loss in intermediate processing. The ''other'' category was calculated by allocating the remaining known recovery to deposit and non-deposit States, adjusting for the lower availability of containers in deposit States due to redemptions.

[2]Normalized per capita recovery figures are based on average annual consumption data for the Nation and do not reflect regional differences in beverage consumption patterns. Therefore they may not be consistent with State-reported recovery figures.

[3]Gross costs include all operations costs associated with operating collection and intermediate processing activities, as well as administrative costs. Cost figures listed for deposit States and non-deposit States as a whole are a weighted average based on population and do not reflect the cost of programs in the ''other'' category since no data were available. A crucial ''reality check'' on the cost figures was provided by the consulting team and MSRP participants, who scrutinized these figures and agreed they are reasonable. Gross cost figures for traditional deposit system (manual) are based on a confidential Franklin Associates study adjusted for consistency. Reverse vending machine gross cost estimates are from Tomra North America, as adjusted by Franklin Associates Ltd. for container mix. California redemption system gross costs are based on cost survey data from the California Department of Conservation, Division of Recycling. They include recycler and processor costs, administrative costs and handling fee payments. DOC data were adjusted to conform with the scrap values and material densities used in this report, and to subtract out curbside recovery impacts. Gross costs for curbside programs are an average of three sources: American Plastics Council, National Solid Waste Management Association and a confidential waste hauling industry source. Drop-off gross costs are from an R.W. Beck study for Ocala, FL.

[4]Material sales prices used are 24-month averages based on survey data from R.W. Beck. Differences in the unit revenues of each program are related to differences in the mix of containers handled. The same per ton values are used for each program.

[5]Unredeemed deposit for traditional deposit systems is derived based on assumed average redemption rate of 78 percent and a ''typical'' 5-cent deposit amount.

[6]Ten States have adopted deposit systems. ''Traditional deposit systems'' operate in Connecticut, Delaware, Iowa, Maine, Massachusetts, Michigan, New York, Oregon and Vermont. California's redemption system is a hybrid deposit system with distinct differences from traditional deposit systems. These terms are defined in detail in Section 2.3 and Appendix C.

[7]The study analysis did not generate separate cost estimates for curbside and drop-off programs in deposit and non-deposit States. The analysis used data from non-deposit States.

Source: Understanding Beverage Container Recycling: A Value Chain Assessment Prepared for the Multi-Stakeholder Recovery Project. Prepared by R.W. Beck, et al for Businesses and Environmentalists Allied for Recycling. January 2002. Table ES–1, Page ES–7. See notes 7–11.

STATEMENT OF KEVIN S. DIETLY, NORTHBRIDGE ENVIRONMENTAL MANAGEMENT CONSULTANTS

Good morning Chairman Jeffords, committee members, and staff. I am Kevin Dietly, a Principal of Northbridge Environmental Management Consultants in Westford, Massachusetts. I am speaking to you today on behalf of the Coalition for Comprehensive Recycling. The Coalition consists of trade associations, companies, and unions dedicated to promoting State and local comprehensive recycling programs across the United States. Container manufacturers, union groups, retailers, restaurants, beverage industry suppliers, and beverage manufacturers of all types are part of this broad-based coalition.

I appreciate your invitation and the opportunity to address S. 2220, the "National Beverage Producer Responsibility Act of 2002" and the broader issue of producer responsibility as it relates to the beverage industry.

"Producer responsibility" for beverage industry containers is a new label for programs that date back as much as 30 years. The core elements of these old programs, generically referred to as "bottle bills," are also contained in S. 2220—a mandatory deposit on selected product containers and a requirement that manufacturers coordinate the recovery of redeemed containers. Research suggests that these programs:

- Offer limited environmental benefits. Because these containers account for a small part of the solid waste stream and a small part of the litter problem, the incremental impact of additional container recovery brought about the deposit program is limited. For example a nationwide deposit program for beverage containers would likely raise the nation's recycling rate by 1 percent or less.
- Hurt existing recycling programs. Creating a duplicate recycling infrastructure for selected containers draws valuable revenue away from existing programs. Equipment utilization rates and operating efficiencies also suffer as consumers pull materials out of the existing recycling system to put them into the new deposit system.
- Raise costs and consumer prices. Regardless of how it is constructed, a duplicate system to handle a limited set of containers would impose a high cost on consumers. Consumers would ultimately pay for the labor and equipment to operate the recovery system and lose billions in unclaimed deposits if they chose to continue using their local recycling programs for deposit containers.
- Are inconvenient for consumers and are increasingly unpopular. The performance of existing deposit programs is in decline. Return rates are at record low levels; research indicates that consumers prefer more convenient ways to recycle that a deposit system.

Background

Mandatory deposits on beverage containers are among the oldest "producer responsibility" programs in existence. The origins of the programs had little to do with many of the arguments made in their support today. In fact, mandatory deposits were a response to growing litter problems in the 1960's. Mandating deposits was also an attempt to force beverage companies to keep selling their products in refillable bottles, even though refillable packaging was becoming less popular with consumers. As consumer beverage demand has grown and evolved, the beverage industry has responded with new types of products and packaging. And now, 31 years after Oregon's bottle bill, S. 2220 would mandate that the deposit mechanism be imposed nationwide on virtually all liquids for human consumption.

Of course consumer preferences for certain beverages and packaging are not the only things that have changed since the 1970's. Many in State and local government as well as the private sector responded to concerns about litter by developing new programs for preventing and cleaning up litter of all types. Today States that adopted comprehensive litter control programs are demonstrably cleaner than those with no litter control programs and are, on average, cleaner than States with deposit programs. On the solid waste front, nothing short of a revolution in recycling has brought residential and commercial recycling to a prominence never before imagined. Recycling is taught in schools and has taken root with a new generation. At home, recycling is now viewed as a basic local service in most communities. Business and commercial recycling continues to grow and to account for most of the materials diverted from disposal.

Producer responsibility for beverage containers must be evaluated in the context of the changing consumer market and the alternative opportunities for waste management and diversion available. The issue is one of comparative costs and benefits: What does a producer responsibility system seek to accomplish and what benefits does it offer vs. the current system? What incremental cost and economic impact result from the proposed system?

I would like to provide the committee and staff with answers to these questions, based on my experience conducting over 20 research projects and reviewing data on this issue over the past 16 years. During this time I have directed primary research into the operation and economics of deposit systems in each deposit State in the United States as well as analysis of proposed programs in the United States and abroad.

Summary of S. 2220

The proposal would impose a federally mandated fee on the sale of beverage containers. Beverage containers are any containers made of glass, metal, plastic, and/or paper that contain or may contain a beverage. All liquids for human consumption are included except milk and other dairy products. The primary impact of the bill would be the establishment of a new materials collection system to recover beverage containers from the waste stream. This system would substantially duplicate existing recycling infrastructure created through the investment of public and private funds over the past 15 years. Consumers would pay substantially higher prices for everyday products to support this system. And it is a system which many find cumbersome and inconvenient. Our summary of the bill and its key provisions is provided in Attachment 1.

In my testimony I would like to highlight three major issues:

- Focus on the potential benefits of this measure
- What the bill seeks to accomplish and what incremental effect it would have
- Elaborate on the new materials recovery system that would be mandated as a result of the bill
- How the system would operate, its costs, and the impact it would have on existing recycling efforts
- Discuss the economic impact of the measure in terms of costs to U.S. consumers
- The bill would have many direct and indirect effects costing consumers billions of dollars per year

A Producer Responsibility System Offers Limited Benefits

Beverage container materials are already among the most widely recycled materials in the country. Even as the beverage industry has responded to consumer demands and packaging innovations through the years, the new package types (aluminum cans in the 1960's, PET in the 1980's) have become accepted and widely recognized as recyclable and valuable. Undeniably, the rate of recovery for beverage container materials as well as other recyclables has been in decline for the past several years. While many theories have been advanced, it is clear that the novelty and high profile accorded to recycling programs in the late 1980's and early 1990's has worn off and the American public needs to be reminded of the value of recovering certain commodities from the waste stream.

This producer responsibility measure focuses on a subset of consumer packaging that accounts for approximately 4 percent of all municipal solid waste generated each year. The identification of beverage packaging as the target for the bill is arbitrary as many other products are packaged in these same materials (metals, glass, paperboard, plastics), but are not singled out for punitive fees and special handling.

With a substantial fraction of these containers already recycled, what is the incremental benefit offered by the proposed deposit system? Based on current recycling rates and realistic levels of recovery under the proposed system, we believe that the recycling rate would probably increase by 1 percent or less. That is, the national average recycling rate computed by EPA each year would rise from approximately 28 percent to 29 percent. As we will see later, the economic impact for such a small move would be quite significant.

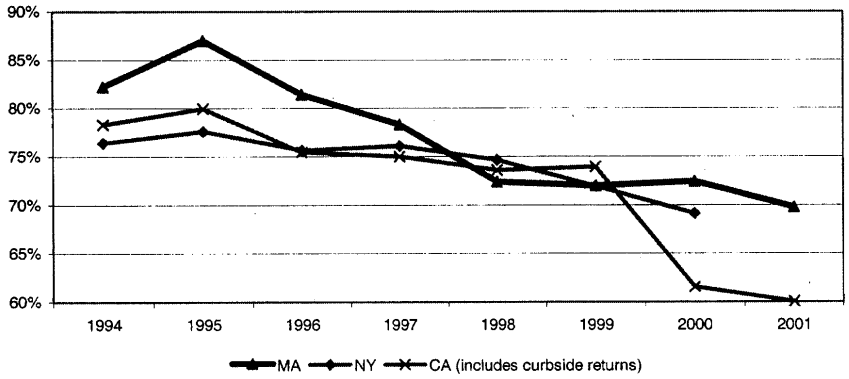
It is also important to highlight that recovery rates under existing deposit laws are at all-time lows. The few States that track and publish their return rates are all on the same downward trajectory (see Exhibit 1). These three States (California, Massachusetts, and New York) contain three-fourths of those who live with deposit systems in the United States. In these States the reported return rate averages less than 65 percent.

Given the broad scope of S. 2220 (no existing deposit program affects as many types of beverages and containers), the expected return rate would be even lower than that experienced in deposit States today.

In short, mandating a deposit is no guarantee of achieving the 80 percent recovery goal in this proposal. In fact, through their lack of participation, consumers are sending a plain signal that these programs are inconvenient and unpopular.

Exhibit 1

Historical Beverage Container Return Rates



Turning to litter control, the traditional rationale for imposing mandatory deposits on beverage containers, the data indicate limited potential benefit, especially given the costs required to achieve the results. Beverage containers consistently account for less than 9 percent of roadside litter, measured in visual litter surveys conducted over the past 25 years. Even if a deposit measure were capable of eliminating beverage container litter (which it would not), roadsides, parks, and beaches would still need to be cleaned periodically and anti-litter education would still be necessary to address the remaining 91+ percent of the litter problem.

Proponents of this measure point to a wealth of benefits ranging from reduced dependence on foreign oil to fewer blown tires on bicycles, but alternative forms of recycling and litter control achieve these same benefits (however they may be measured). The key point is that the forced deposit systems offer only marginal gains in these various categories. Further, the real impact of this proposed system cannot be accurately stated until the net effect of extra trips to redemption centers, new trucks and traffic, and other environmental consequences of the new redemption and collection system can be documented.

In sum, the rationale for special treatment for this small part of the country's waste stream is questionable at best. Additional recovery of many other materials in the waste stream could offer equal or greater societal benefit and may very well be feasible at a substantially lower cost than the scheme envisioned in S. 2220. Singling out beverage containers for management through a separate system also has significant economic consequences as we will describe below.

Establishing a Duplicative, Costly Redemption System

Today most Americans can recycle a wide range of materials right at the end of their driveways or in their apartment buildings. About 60 percent of us have access to curbside recycling and most of the rest can drop recyclables off where we dispose of trash or at other convenient locations in our communities. It is no coincidence that at the time the last forced deposit measure passed in California in 1986, none of us had ever even heard of curbside recycling.

As we walk through the practical implications of the new materials recovery system required by this bill, we will highlight the system's expense, inconvenience, and adverse impact on the recycling programs already in place.

Redemption System Elements

All forced deposit programs (which are in place in 10 States containing 29 percent of the population) mandate the collection of a fee when the product is sold. The fee is refundable upon return of the container to a designated "redemption" site which may be at a retail facility or a separate redemption center. These systems contain myriad complications and hidden costs, but we will only focus on the major ones at this time.

Consumer Time

A forced deposit system requires consumers to segregate deposit containers from other recyclables or trash, store them, and return them to a designated location.

Sometimes consumers return containers while on shopping trips, other times they make special trips, especially to separate redemption centers. For their effort, consumers earn a refund of the deposit they already paid—no compensation for their time, only the repayment of money they paid out weeks before when they purchased the beverage containers.

Consumer marketing and packaging have changed dramatically in the last 20 years and one of the driving forces behind these shifts is consumers' demand for convenience in everyday products. Families with two wage-earners and day-care deadlines, seniors with limited resources and mobility, and young professionals are not looking for ways to spend more time managing their trash. The time and effort expended by consumers in deposit systems represents one of the great unquantified burdens of these systems. And, as documented earlier, deposit systems are increasingly unpopular and burdensome to consumers resulting in lower utilization of the systems and increased incidence of consumers forfeiting their deposits.

Redemption Sites

The costliest component of a forced deposit system is establishing a network of sites to accept returns from consumers. Traditionally, these sites have been co-located with product retailers forcing food stores into the recovered materials business, despite the obvious flaws (sanitary and otherwise) with such a system. Deposit programs have imposed high costs on stores with notoriously slim margins and particularly penalized the small and medium-sized stores where redemption costs are the highest.

In addition to the formidable health and environmental concerns with handling returned containers in food stores, retailers face logistical problems finding space for storage, coordinating the sorting and removal of containers from stores from the many product distributors involved (especially since S. 2220 would include an unprecedented range of products and containers), and managing containers that would be impractical to redeem through reverse vending machines (because of their size or material composition).

Either as a complement or alternative to retail redemption, some forced deposit programs rely on separate redemption centers where redemption is the sole or primary business. In order for this model to operate, beverage distributors must subsidize the operation of these facilities through the payment of fees for each container handled. Not surprisingly, States with high handling fee subsidies have the most redemption centers; those with no subsidies have virtually none. (Interestingly, the presence or absence of stand-alone redemption centers does not appear to affect return rates.)

The cost elements at all redemptionsites are similar: labor to accept containers from the public or to service machines that accept returns; capital for constructing new space to accept, sort, and store containers; operating expenses for leasing and operating machines, increased sanitation, cleaning, and supplies.

Collection System

Finally, a system is required to collect returned containers from all redemptionsites, transport them to central locations, and process the materials into market-ready commodities. The costs include vehicles, drivers, warehouses, processing equipment, accounting, and administration to track funds including deposits and refunds. Revenues from the sale of materials are used to defray collection and processing expenses.

System Cost Estimates

A redemption and collection system in the 40 States without deposit laws currently would cost about $4 billion annually. This estimate was derived from our 1991 analysis of a national deposit law and was scaled to reflect the number of containers subject to deposits under S. 2220.

Several factors would tend to inflate the cost further. Two of the most significant are:

- We did not account for the substantially higher costs associated with collecting plastics, steel, paper, and composite material packages that were not part of the 1991 analysis
- Some incremental costs would be incurred in the 10 States that already have deposits. The first reason for this is that even for products already covered by the deposit, the return rates are less than 80 percent: at least three-fourths of the population living with deposits have redemption rates below 70 percent. Therefore the existing deposit system would not be sufficient to avoid the imposition of the Federal system. Second, we know that many products regulated under S. 2220 are out-

side the existing deposit systems, so manufacturers of these products would face new requirements in all 50 States.

The bill's proponents argue that the flexibility provided to industry in S. 2220 should result in operating efficiencies which would reduce costs below those associated with existing deposit programs. We will address that theory next.

Impact of a "Performance Standard"

One unique feature of S. 2220 is the establishment of a "performance standard" of an 80 percent recovery rate for each beverage manufacturer's products. Note that this is no assurance that the rate would be achieved, it is simply a target like a State recycling goal. This contrasts with the traditional approach of U.S.-forced deposit laws which mandate how the redemption and collection infrastructure is to operate.

In theory, this approach is intended to provide flexibility to the beverage industry to develop a redemption and collection system that is as efficient as possible, thereby reducing costs compared to traditional deposit systems. In practice, this deceptively simply standard masks a number of hidden problems.

First, the system design, even for an individual manufacturer, would be extremely complex. The bill would require that within 6 months of passage, each manufacturer would have established recovery systems covering all States including commitments from all entities who are to provide both redemption and collection services. This task would be daunting for the largest and most sophisticated beverage companies, but may be nearly impossible for smaller firms in the market. Such a plan would require detailed agreements with hundreds of retail and other entities within the companies' marketing areas. The administrative expense of establishing and maintaining these systems would at least partially offset any operating efficiencies they might offer.

Another factor that would reduce the hoped-for cost reductions is the difficulty of cooperation across different beverage companies and sectors. Literally thousands of manufacturers sell products that would be subject to this proposal, creating a patchwork of sales and distribution territories in which their products are available. The complexity comes in trying to allocate financial responsibility for a recovery system in which the portfolio of products available for sale varies literally from store to store. Making the problem worse is the fact that beverage manufacturers who sell through distributors may not know where their products are offered for sale. Integrating sales and market territory information across hundreds or even thousands of manufacturers would be costly and time-consuming. The obvious alternative is to leave smaller and regional companies to establish their own systems which would drive up their cost of recovery substantially.

Third, it is unclear how the Federal and existing State deposit laws could co-exist. For example, one manufacturer in Oregon may comply with the 80 percent standard and be exempt from the Federal law. Yet the redemption system and 5 cents deposit value would conflict with the systems and deposit value established for other products. It is likely that the Federal system would, in fact, supersede all existing State programs.

It is clear that this kind of producer responsibility system would discriminate against small and mid-sized beverage companies who would lack the resources and volumes to command the attention of larger service providers (or "agents" as they are called in the bill). The cost and scale disadvantages faced by these beverage companies would put them at a distinct disadvantage to their larger competitors. This would be a particularly acute problem for small regional companies such as dairies (who produce much more than just milk products), water, and juice manufacturers. In sum, the argument that a performance standard will reduce costs needs to be carefully evaluated in light of the realities of the product manufacturing and distribution system in place for beverages, the complex and unprecedented range of products subject to deposits in S. 2220, and the potential for anti-competitive outcomes that disadvantage small and mid-sized producers. As we can observe from the unique California deposit program, administrative complexity can impose significant costs that defeat the hoped-for operating efficiencies of a centralized system.

Impact on Existing Recyclers

The imposition of a national deposit system for beverage containers cannot be evaluated without considering the implications for the vast recycling infrastructure that has been developed over the past 15 years. State and local governments have invested billions of dollars to build recycling collection and processing capacity for household and commercial recyclables. A deposit system would seek to pull commodities out of that existing system and transfer them to a new handling system, outlined above. Much of the material that would be recovered under the system pro-

posed by S. 2220 is material that is already being recovered through taxpayer-funded programs in communities all over the United States. While we would argue that there is no economic rationale for that shift, there is also a question of whether there is any justification for the Federal Government to mandate that policy.

Beverage container material, especially aluminum and the most common plastics, provide significant value to recycling programs. Research has indicated that beverage container material accounts for between 40 percent and 70 percent of revenues earned from the sale of residential recyclables. Of course scrap revenue does not fund the cost of recycling programs, but it does offset operating costs significantly.

Individual communities and States have examined the implications of container deposit programs on their recycling economics and documented the harmful effect of a deposit system. The adverse impact of deposits was a critical factor in the repeal of the Columbia, Missouri municipal deposit ordinance in early April of this year. The City's Public Works Department computed positive benefits from eliminating deposits and has already seen historically high recovery levels through the City's curbside program since repeal. For States without deposits, adding them would pull revenue and material out of the existing programs. In Pennsylvania, for example, recyclers would lose over $30 million in annual revenue if a deposit system were implemented. A similar analysis in New Hampshire estimated the loss to community recycling programs at $3 million per year.

In addition to the adverse impact on revenue, deposits would decrease the utilization of existing recycling infrastructure and could jeopardize the viability of programs to recycle other containers not subject to deposits. Pulling deposit material out of existing recycling programs would do little or nothing to reduce costs of providing recycling in those communities. The same equipment would still be required, the same trucks and drivers following the same routes—they simply would be collecting fewer containers than they do now. (Of course many consumers would continue to recycle deposit containers through curbside bins as they do now, so some deposit material would remain in the system.)

There is, however, a risk that removing the beverage containers from the system could irreparably damage the viability of container recycling. Communities may find that the remaining containers are simply too expensive to collect for recycling, especially given the greatly reduced revenue. Though the container recycling issue in New York City is complex and politically charged, it is clear that one factor in the high cost of container recycling there is the lack of valuable beverage containers in the stream: containers that are diverted to the deposit system instead.

The relationship between State and local governments on solid waste issues has always been tense because of the difficulty of crafting State-wide or regional policies that reflect the diverse local circumstances faced by towns and cities. Strong justification is therefore required to shift that policymaking role up to the Federal level and to mandate a new system to overlay the recycling systems built with taxpayer and ratepayer funds over the last 15 years. In our view, this shift is ill-advised and certainly not justified by the limited, potential benefits offered by S. 2220.

Economic Impact on Consumers and Businesses

Whether it is called a producer responsibility measure, an anti-litter policy, or a bottle tax, mandatory deposit programs impose a substantial cost on consumers. Under this proposal, the range of products and consumers affected would be unprecedented. More beverages and types of beverage containers would be included in this program than in any other deposit program. That means that the economic impact of the measure would affect every U.S. consumer—the effects would not be limited to those who consume only certain products.

- Consumers pay with their time. We have already described how time-consuming a deposit system is for consumers. Separating containers from other recyclables; making a trip to a designated location to redeem bottles, cans, and cartons; and waiting in line for workers or machines to accept containers takes time that consumers just don't have. It is hard enough to get most consumers to recycle at all let alone recycle one set of materials at home and haul another set to a redemption center.

Consumers who live with both systems prefer comprehensive recycling. While deposit law proponents cite high popularity for deposits in the ten States (e.g., "Do you like the deposit law?"), when asked if they prefer recycling at the curb or through the deposit system, consumers prefer the comprehensive option 2:1.

- Consumers pay for the system. Earlier we provided a rough estimate of $4 billion as the cost of a national system to redeem and collect beverage containers captured by S. 2220. This system must be developed by the companies that manufacture and distribute these products. Ultimately, it is the consumers of these and

other food products that will bear the cost of the system. (The beverage industry will suffer its own setbacks in the form of lower sales resulting from higher prices charged for its products.) But in the long-run, consumers will pay billions of dollars in higher prices for these and other products.

• Consumers pay the unclaimed deposit tax. The decline in return rates in deposit States is proof that for many consumers their time is worth more to them than the value of the refund. These consumers are making a rational tradeoff between the refund and the time it takes to obtain it. For them, the deposit simply functions as a tax on the price of these products.

Consumers who choose to support their local recycling programs or simply prefer the convenience of curbside recycling also forfeit their deposits, even though they are still recycling the containers.

For at least one-third of consumers in deposit States the deposit functions like a tax. We estimate that the unclaimed deposit tax would equal at least $4.8 billion per year, just in the 40 States without deposits now. As noted earlier, the Federal program would likely be in force in several if not all of the existing deposit States as well since they are not achieving the target 80 percent recovery rate.

We have only estimated the 40-State cost of the redemption system and the unclaimed deposit, but the combined annual cost to consumers from these two elements of the proposal is $8.8 billion. If we factored in the value of consumers' time to redeem containers, the cost would be substantially higher.

Beyond the direct impact on consumers, the affected businesses also suffer from being singled out in this legislation. Higher actual and perceived prices would reduce sales of soft drinks, juice, water, beer, tea, and other products. This not only affects manufacturers, but their suppliers and retailers as well. In the soft drink industry, for example, each dollar of output by bottlers produces another $2.70 in economic activity elsewhere in the economy.

The bill would also have an adverse effect on tax collections at all levels of government. The soft drink industry pays $17 billion dollars in Federal and State taxes each year; tax payments would drop as a result of lower sales and profits. The tax implications of this bill would be particularly pronounced on alcoholic beverages, where excise taxes represent a much higher share of product price than for soft drinks.

Beverage companies, retailers, and their suppliers would also experience job losses as a result of the higher prices and lower sales. A University of Kentucky analysis, for example, projected 1,200 lost jobs in Kentucky alone as a result of a more limited deposit proposal considered in that State.

Alternatives

Building separate recycling systems for not just certain types of materials, but for selected products packaged in those materials is not a rational direction for U.S. solid waste policy. Labor and equipment for handling waste are costly; industry professionals have long recognized that efficiency results from minimal handling of materials and from large scale operations. Recycling is no different, especially for commodities that are widely recycled, have existing markets, and pose no special environmental hazards. Recycling programs that target multiple materials, minimize handling, and maximize volume are likely to be the most successful and efficient way to keep waste out of landfills and incinerators. Providing disincentives to disposal such as pay-as-you-throw trash programs is a useful supplement—in fact it is the single most effective policy instrument to increase waste diversion.

Decisionmaking on appropriate waste management systems is best kept at the local and regional levels where demographics, market conditions, and the wishes of taxpayers and voters can dictate policy. Imposing a costly new system on top of existing recycling infrastructure means higher costs for U.S. consumers. Enhancing the systems in place to make better use of existing infrastructure is a far better use of time and resources directed at recycling.

Recovery rates for many materials have slipped, largely as a function of decreased education and promotion about the value of recycling. On the litter front, consumers, especially those most prone to littering, could use more frequent and directed reminders to obey the law and not litter.

The soft drink industry has long advocated and supported comprehensive and sustainable programs to recycle and reduce litter. Spending consumers' money to build a massive new beverage container recycling system is simply wasteful. To provide perspective on the magnitude of the new costs, the $8.8 billion in new consumer costs would be sufficient to fund the curbside collection of nearly 60 million tons of material—about 25 percent of the entire municipal solid waste stream.

Thank you for the opportunity to appear before you today and present this testimony.

ATTACHMENT 1

SUMMARY OF NATIONAL BEVERAGE PRODUCER RESPONSIBILITY ACT OF 2002

Reference: S. 2220 (Jeffords); April 22, 2002

Provisions

- Imposes a 10 cents refund value on all beverage containers offered for sale except those offered for on-premises sale
- Beverages include alcoholic or nonalcoholic carbonated or noncarbonated liquids for human consumption except milk or dairy products.
- Beverage containers are "primarily constructed of metal, glass, plastic, or paper (or a combination of those materials;" have a capacity of not more than one gallon; contain or may contain a beverage; and are offered for sale.
- Requires that the refund value be adjusted every 10 years based on CPI changes, with changes rounded to the nearest 5 cents increment
- Beverage manufacturers, distributors, or their agents must:
- Submit a plan for EPA approval outlining an industry-devised system to collect, transport, reuse, and recycle beverage containers
- Collect the refund value from customers
- Label beverage containers with the refund value
- Submit to EPA for public release an audited annual report of the return rate for beverage containers and an accounting of deposits collected and refunds paid
- Pay an undetermined fee to EPA to administer the program
- Plans must be submitted for EPA review within 180 days of enactment. Plans must contain:
- Brands included in the plan
- Agreements with entities that will accept container returns and pay refunds
- Explanation of how consumers will be provided with "convenient" return sites
- Ways in which the recovery rate for containers will reach 80 percent in 2 years
- How the returned containers would be managed
- Additional requirements applicable to beverage manufacturers, distributors, or their agents:
- Prohibited from disposing of any deposit container in a landfill or incinerator
- EPA may require payment of unclaimed deposits to States in which containers were sold if 80 percent of containers are not recovered.
- If operating in existing deposit States and achieving an 80 percent recovery rate, the Federal program would not apply in those States

PRACTICAL IMPACT

Scope

- Beverages: includes all liquids for human consumption—well beyond the scope of any existing deposit program. Even the Maine law which is the most inclusive deposit program in the country excludes milk and dairy products as well as products such as soups, broths, flavorings, and infant formula.
- Beverage Containers: metal, glass, plastic, paper and combinations of those extend the scope of the bill well beyond any current deposit program. Paperboard cartons and drink boxes would be included. Any container than may contain a beverage is subject to the law which would include plastic and paper cups (filled or not, sealed or not) and glassware. So, a sleeve of 100 paper cups in the grocery store would have a $10 deposit.

Refund

- 10, equal to the Michigan deposit, the highest in the United States. The deposit would increase 5 cents every 10 years if the annual CPI change averaged 2.3 percent (a likely scenario).
- Collected on all containers sold and refunded to consumers at designated redemptionsites, as noted below

Manufacturers' responsibility

- As a "manufacturers' responsibility" bill, the measure leaves the development and operation of a system to redeem and handle returns entirely to the manufacturers, distributors, and importers.
- While this is done in the guise of appearing reasonable and flexible, it is borrowing from the European Green Dot system and other similar efforts to force the establishment of an industry-financed, reverse distribution system for products. The electronics industry is currently involved in a similar issue.

• The logical extension of such an approach is a network of producer-backed waste hauling operations, duplicating the services provided by thousands of local governments and private haulers throughout the country.

Redemption system

• No requirements are imposed on product retailers unless they are part of the system proposed by the industry.
• Beverage companies must devise a plan, subject to EPA approval, that will achieve 80 percent recovery of deposit containers within 2 years. The use of the deposit mechanism is mandated, but the operation of the system and compensation for redemptionsites (i.e., a handling fee) are not prescribed in the bill.
• Developing such a system for all products nationwide would represent a significant undertaking. Many small producers would be obliged to pay any price in order to get access to a system set up by larger companies. The impact would be extremely anti-competitive and anti-consumer.

Exemptions

• No State program affects this range of products and containers, so no State could achieve the 80 percent level required for exemption from the Federal requirements. Companies would therefore have to develop nationwide plans for redemption.
• Even if only conventional beverage containers were affected, most deposit States don't achieve an 80 percent rate anyway.

Disposal prohibition

• Many of the proposed deposit containers have limited recycling opportunities (e.g., composite material packages, certain plastic bottles and paper cartons, paper and plastic cups). It is unclear what the fate of these materials would be if they were collected but not be disposed.
• Collection of these materials would contaminate loads of more valuable commodities and would result in expensive collection of materials for which no practical use could be found.

July 25, 2002.

Senator JAMES M. JEFFORDS, *Chairman*
Senate Environment and Public Works Committee
Washington, DC 20510.

DEAR SENATOR: I am responding to your e-mail of July 17 containing a follow-up question from the July 11 hearing related to producer responsibility and the beverage industry.

Question. During the question and answer period of the Hearing, you testified that the industry believes that efforts to impose bottle deposit legislation is a local issue. If it is a local effort, why did the beverage industry work to repeal the bottle bill in Columbia, Missouri?

Response. First I should clarify that my remarks were intended to emphasize that local and county governments are the appropriate levels at which to make specific decisions about which materials are recycled and how they are managed. There is clearly a role for coordinating State policies that set guidelines and standards, but local entities need flexibility to accommodate local circumstances in the design and operation of their waste diversion programs. Policy considerations, not political ones, should govern the particulars of such an inherently local matter.

The reason I emphasized the point in my testimony and my response to questions is that I believe the Federal Government has a limited role to play in this issue. Federal mandates, even cloaked as "producer responsibility" measures, limit the flexibility and authority of State and local decisionmakers. As I pointed out in my testimony, a federally mandated deposit and redemption system would overlay and in many cases damage existing recycling infrastructure funded and supported by local taxpayers and rate payers.

The question about the bottle bill campaign in Columbia is completely separate from the discussion about where solid waste decisions should be made. The beverage industry did support the work of the local supporters of the Yes on 1 Committee in Columbia. The referendum was devised and put on the ballot as a result of a grassroots organization in Columbia with which the beverage industry had no involvement. In fact, the industry came somewhat late to the campaign since the groundwork had already been laid by the local organization.

The industry promoted a position that was directly or indirectly endorsed by local recyclers and the City's Public Works Department. The City's analysis showed that incorporating the bottles and cans into the City's blue bag (curbside) program would

yield a net benefit of about $160,000 per year to the curbside program budget. It would also help support the operation and expansion of the City's new materials processing facility—a significant step in controlling recycling costs since the recycled materials were being shipped considerable distances for processing. The jump in recycling tonnage since repeal seems to support the petitioners' claims that residents would continue to recycle these containers. Eliminating the deposit system also avoids $1.5 million in annual operating costs to retailers and beverage distributors—savings which benefit local businesses and consumers alike. Finally, the repeal ends the pervasive fraud problem which attracted millions of bottles and cans into the redemption system for which no deposit was ever paid.

On balance, the Columbia vote mirrors the widespread feelings about deposits in bottle bill States. While consumers, especially older ones, are used to the deposits and support the programs, they prefer simpler ways of recycling. If presented with the choice, these consumers would rather recycle all of their household materials at once and avoid the extra time and higher prices forced on them by a bottle bill system.

I would like to thank the committee again for the opportunity to testify and would be pleased to provide you with additional information and assistance in the future.

Very truly yours,

KEVIN S. DIETLY,
Principal.

STATEMENT OF DAVID E. BONIOR, FORMER U.S. REPRESENTATIVE FROM THE STATE OF MICHIGAN

Many people forget that until the late 1950's, most beverage containers were made from glass and redeemable for deposits under a system voluntarily maintained by bottlers. Eventually, the glass industry, wanting to expand their profits, developed the "no-deposit, no-return" concept and soon our highways and beaches were cluttered with empty bottles and cans—prompting complaints from residents of Michigan and tourists alike.

I was in the Michigan State Legislature back in the early 1970's when Oregon and Vermont enacted the first bottle bills in the Nation. A group of us tried to get a bottle bill through the Michigan legislature, but were stymied by special interests. So we took it directly to the people. The Michigan United Conservation Clubs (MUCC) led a petition drive to get it on the ballot and we made it! Voters in Michigan overwhelmingly approved a ten cent bottle deposit law, becoming the first industrial State to enact one.

Our bottle bill is the most progressive in the country—and it's working. In 2001, 98 percent of the deposit containers purchased were returned for a deposit, which is higher than the average recovery rate of about 85 percent for the 10 States—including Vermont—that have a bottle deposit, and significantly higher than the national recovery rate of 42 percent.

In fact, Pat Franklin, from the Container Recycling Institute, once stated, "Michigan does more than its share—Michigan and the other bottle bill States are doing the lion's share of recycling in the U.S."

The trouble is, for all our hard work and due diligence, our deposit law is being undermined by out-of-State and Canadian trash. Nearly 4 million tons of waste from other States and Canada were dumped in Michigan landfills last year—almost 20 percent of all solid waste disposed of in Michigan. A national bottle bill would level the playing field for States like Michigan and Vermont that already have effective recovery programs. Our neighboring States like Illinois, Indiana and Ohio would reduce the amount of trash they generate. By simply reducing the amount of cans and bottles in the overall waste stream, we will curb the justification for other States to export garbage to Michigan. I am also supporting efforts in our State to prevent Canadian cans and bottles from being dumped in our landfills. There is no reason Michigan should be taking in other people's garbage just because we've been responsible with our own.

The proposal by Senator Jeffords, the National Beverage Producer Responsibility Act, is a fresh approach to ensuring comprehensive beverage container recycling. It puts beverage brand-owners in charge of developing an efficient deposit return program to achieve an 80 percent recovery rate. It basically tells beverage companies, "your responsibility doesn't end with the sale of your product. You need to have a plan to collect empty containers after consumption." It's a cost-effective, sound approach, and one I think we should explore in the House. I commend Chairman Jeffords for holding the first hearing on this issue in 10 years. I know our friend the late Paul Henry would be pleased to know that his former colleague has taken up

the cause to enact a national bottle bill. Thank you for all the good work you are doing, and thank you for taking my testimony.

LETTER OF WAYNE TURNER, GREENSBORO, NC

Mr. DOUGLAS N. DAFT
Chairman of the Board of Directors and Chief Executive Officer
The Coca-Cola Company
P.O. Box 1734
Atlanta, GA 30301

DEAR MR. DAFT: I wistfully recall my grandfather pulling a chilled Coke from the drink box in his eastern North Carolina country store and gulping it down in just a few swallows. The drinks from his drink box always seemed to be the coldest and could cut the dust from a parched throat almost instantly. Even so, I stood amazed at how he could slug down a 7 ounce Coke so quickly. I aspired to duplicate that feat someday—but never did. I also remember how, on many hot summer days, I made a few dollars by picking up drink bottles from the fields where farm workers had left them and redeeming them for the two-cent deposit. That was in the 1960's, when two cents alone was enough to buy two pieces of bubble gum or two Mary Jane's or one Tootsie Roll Pop. Pick up enough bottles and you could easily buy a complete snack: a drink, a bag of chips and a candy bar.

I also recall the deep understanding and appreciation my grandfather had for his community and the social fabric from which it was woven. His store was located in a poor, rural county where farming was the primary occupation. Often, my grandfather would extend credit to shoppers who couldn't afford to pay him for the basic goods they purchased from his store. And frequently, he would simply forgive the debt or allow someone to "work off" the money they owed if he thought payment created a special hardship. My grandfather knew the value of money, but more importantly he knew the value of responsible citizenship even if it meant he didn't profit as much on some days as others. His sense of community, fairness and altruism had no price. Although not wealthy by any means, his success was determined more by his contributions to the community than by how much money he made.

These wonderful, nostalgic memories of my grandfather, his country store and Coca-Cola are a part of my past that I shall always treasure. It is classic Americana.

During my work in the environmental field, which spans 13 years, I have witnessed many successes and failures. I count as a success the announcements made by both Coke and Pepsi that they will begin using plastic beverage containers made from10 percent post-consumer PET. Although late in coming, I applaud theses efforts and hope that the carbonated soft drink industry will increase the amount of post-consumer recycled content in its plastic bottles in the future. On the other hand, I count as a failure the National Soft Drink Association's (predictable) attempt to discredit the sincere efforts and technically exhaustive work of the Multi-Stakeholder Recovery Project undertaken by BEAR (Businesses and Environmentalists Allied for Recycling) in its beverage container value chain assessment report. It is a failure of immense proportions on the part of the carbonated soft drink industry to refuse to come to the table and work closely with other community stakeholders to address a persistent and pervasive waste—used plastic beverage containers. With national average recycling rates for all beverage containers languishing, even declining in some areas, the soft drink industry has no excuse for remaining on the sidelines during this national dialog.

It is particularly troublesome that the carbonated soft drink industry seems to have sold its corporate conscience to the National Soft Drink Association, a group that ostensibly exists only to insulate the industry from the voice of its consumers while portraying it as inherently patriotic. I take exception to the NSDA's use of the slogan "Soft Drinks—A good part of America" while it continues to package its products in non-returnable, non-reusable, non-recyclable plastic bottles. There is nothing good about the millions of plastic beverage containers that end up in landfills across America because Americans that consume your products have no place to return or recycle them. There is nothing good about the fact that plastic beverage containers are one of the most commonly found items in roadside litter across America. There is certainly nothing good about how the soft drink industry, through the NSDA, disputes these immutable facts and openly works against efforts to find ways to reduce plastic beverage container waste in America.

The soft drink industry must accept responsibility for its used packaging and return to the negotiating table to help craft practical, effective bottle recovery programs. Until such time as it does, my American family of four will no longer purchase any of your products in plastic containers. We want your products but not

your trash! And I know that if my grandfather were alive today, he would support our decision.

Sincerely,

B. WAYNE TURNER.
ANDREA TURNER.
ALEX TURNER (12).
HAYLEY TURNER (6).

STATEMENT OF FRAN MCPOLAND, FEDERAL ENVIRONMENTAL EXECUTIVE 1994–2000, AND CHAIR, WHITE HOUSE TASK FORCE ON RECYCLING 1998–2000

My name is Fran McPoland, and from 1994 until 2000, I was honored to serve my country as this nation's first Federal Environmental Executive, and later also as Chair of the White House Task Force on Recycling. It is in light of those experiences and the insights gained in implementing Section 6002 of the Resource Conservation and Recovery Act that I am pleased to submit these comments for the record.

As the Federal Environmental Executive I was directly responsible for the implementation of Executive Order 12873, and subsequently, Executive Order 13101 which provided additional requirements implementing the broad intent of RCRA Section 6002. I was also the principal author of Executive Order 13101 which aims at increasing compliance with overall government environmental procurement programs. Because of these experiences I believe I bring to this hearing the unique perspective of having been on the front lines of "Greening" Federal procurement.

I believe the core question before this committee is whether RCRA Section 6002 has been a success or a failure. And why? The answer to the first question is a qualified yes. The provision has been successful in a number of areas and has not been successful in others. The answer to the second question is more complicated and I believe this committee needs to understand that the successes that we had are not likely to be easily replicated across a broad swath of product categories.

What did Congress intend to accomplish with the drafting of RCRA Section 6002?

In reading the language of the law and the report, it is clear that Congress considered recycling to be a critical part of the Nation's waste management hierarchy and that the Federal Government, through its procurement actions would be key to steering materials away from disposal by providing a robust end-market for products made from such materials. Clearly Congress intended that the Federal Government would use it's purchasing powers to move recycled products through the system. In effect, to "pull" products back into useful commerce and away from the landfills and the incinerators.

Has RCRA 6002 been successful?

As I noted in my summary, in my view the answer is mixed. Congress directed EPA to determine if there were products containing recovered materials that the Federal Government could buy and to develop specifications calling for recycled content in those products. EPA, as you well know, got off to a very slow start. From the time the law was passed in 1976 until 1988 there were only 5 products designated (and that was only as a result of a lawsuit brought against the Agency by the Natural Resources Defense Council and others). After 1988, EPA didn't designate a single product until 1993, when Executive Order 12873, directed both that the process be streamlined and that EPA meet a schedule established in that Order. After that things picked up dramatically so that by 2000 more than 50 products had been designated.

The most dramatic success of the statutory provision and the far reaching actions of the Clinton-Gore Administration in implementing Congress's intent was in the area of copier paper. To understand that success, it helps to realize both how much of an improvement was made in a relatively short time and to understand the unique features of that product which may temper our natural enthusiasm for trying to transfer that success to other products.

First, how far did we get in expanding the use of post-consumer recycled content copier paper? Up through 1992, the Federal Government was buying only 12 percent of the quantity of its paper with recycled content—and the post-consumer waste content of that paper was only 10 percent. By the end of 1998, we had achieved a governmentwide compliance rate of 98 percent of our copy paper was 30 percent post-consumer paper. That constitutes a 2,450 percent improvement.

There were a number of factors which contributed to that success—unfortunately, some of these factors may not be reproducible for other commodities. First of all, paper is the very life-blood of the Federal Government. It has been for years, and

despite the electronic communications revolution, and the anticipated "paperless office", there has been no appreciable drop-off in the Federal Governments' use of paper. Because of the critical day-to-day importance of paper to the operation of the government, and because procurement of nearly all paper occurs through centralized procurement agencies such as GSA and GPO—the number of "points of control" for achieving the Presidential mandates in Executive Orders 12873 and 13101 was minimal. However, very few items are bought through centralized procurement systems anymore. With the dramatic decentralization of government procurement authority and growth of virtually uncontrolled use of government credit cards, replicating the paper success across the board would be impossible, especially since OMB has consistently resisted efforts to require the banks which issue the credit cards under contract to the government to report on transactions at the level of specificity needed to ensure compliance with buy recycled efforts. Because the vast majority of the copy paper is purchased through GSA and GPO we were able to carefully track, and report to the Congress on our progress in increasing government purchasing. OMB, however, continues to oppose essential reporting tracking on credit card purchases. Since public funds are being expended it seems implausible that OMB is not interested in whether those funds are being obligated in ways that comply with the law. Until tracking and reporting is required, voluntary compliance without oversight is doomed to fail. There is a saying in management that sums it up: "What gets measured gets done."

A clear example of this was at the Department of Energy under Secretary O'Leary who had established a 100 percent compliance goal with RCRA Sections 6002 in her performance agreement with the President. DOE measured and rapidly improved its performance dramatically in the following years.

Another reason that our experience with copier paper is not replicable is that EPA tends to ignore how the government purchases products when it sets CPG Guidelines. The clearest example of this is the CPG required product, "cement containing fly ash." The government really doesn't buy much "cement" as a single line item—we buy buildings and parking lots. And, unless language is put into the appropriate contracts for these construction projects and some mechanism is found to track compliance—this CPG item will continue to be ignored. The same can be said for the other construction products in the CPG like paint, wallboard, insulation, etc.

The fact that getting to 100 percent for all commodities is not feasible should, however, not deter us from maximizing our efforts to increase the governmental purchasing of recycled content and environmentally preferred products. Why? I believe there are some very sound reasons for maintaining and increasing our focus on promoting procurement of recycled content and environmentally preferable products. This envisions: 1) energy/environmental economics; 2) Promoting technical change/leadership/markets.

First, the quantifiable multi-media environmental life-cycle benefits of making products from post-consumer recycled materials and other Environmentally Preferable Products are enormous. The environmental benefits of Federal purchasing of just recycled content copier paper within the RCRA 6002 program as compared to buying that same quantity of paper made from virgin fiber are summarized in the following list:

- 450,000—500,000 fewer trees cut down annually
- 14 percent reduction in greenhouse gasses and air emissions
- 13 percent reduction in solid waste generation and water pollution
- 12 percent reduction in energy used to produce paper
- 16,000 tons of carbon absorbed by trees left remaining standing

But it is not just environmental and energy benefits which this program delivers—it has become a major force in our economy. Hundreds of industries, large and small, new and old, have come to rely on recovered materials as a major source of their production inputs. Work done by my staff at the White House Task Force on Recycling reveals that fully 67 percent of the steel produced in the United States and 55 percent of the aluminum cans produced were recovered from the waste stream. EPA projects that only the part of the market dealing with the recovery of recycled materials will be a $5.2 billion industry by 2005—not to mention the direct energy and production cost savings of using recycled vs. virgin raw materials.

Without Demand There is No Need For Supply

What these statistics show is that the widespread success of the collection of recyclable materials at the curbside has formed a vast supply chain of highly processed materials, and that supply has been successfully married to effective demand in a significant and growing portion of American industry.

Unfortunately, some of the most difficult and potentially damaging elements of the waste stream specifically intend to be captured by the RCRA Section 6002 pro-

gram have not found the demand the Congress promised and which is necessary for reducing the environmental damage from these materials and returning these wastes to products in useful commerce.

Exhibits 1 in the list of where we have largely failed is the Federal Government's failure to live up to its promise of 25 years ago to buy re-refined motor oil and re-tread tires. The American people were appropriately outraged in 1989 when the *Exxon Valdez* released 11 million gallons of oil into the Alaskan waters. In that same year, more than 190 million gallons of used oil were improperly disposed of by "do-it-yourself" engine oil changers—nearly the equivalent of 16 Valdez spills. When you add in additional sources of improper used oil disposal it adds up to about 35 *Exxon Valdez* spills! Much of this could be recovered and recycled if there was demand.

Why do we not recover and recycle the oil? Simply put, it's not worth our while to do so because there is not much of a market for it. With no market, who wants the hassle of collecting it? At the end of 1992 we were buying half of 1 percent of the governments' lubricating oil needs with re-refined oil made from collected used oil. By the end of 1997 we had increased that to a still abysmal 12 percent. I suppose I could say that during my tenure, we managed to increase procurement by 2,480 percent, but the fact would remain that we are simply not getting the job done to get these waste streams out of the environment and back into useful commerce. The same story applies to retread tires. The Federal Government's procurement of tires and oil is not executed exclusively through limited control channels like paper, but the number of control points is relatively small and the Federal Government's leverage is large. With the will to do so, GSA and DOD could change the situation overnight. For example, they could write contracts requiring that cars sold or leased to the Federal Government come equipped with retread tires and re-refined oil—just as we did with seatbelts in the 1960's.

In 1976 the Congress attempted to forge a new direction in national waste management priorities—by not merely enshrining recycling in a higher place in the hierarchy but by taking steps to ensure the success of recycling by providing a stable source of demand for products made with collected materials. While the Congress' insight on this matter was remarkable perhaps it should have foreseen recalcitrance on the part of the Federal bureaucracy.

Another factor in the success of post-consumer content copier paper was the decision on the part of GSA to discontinue sales of virgin copy paper. GSA didn't do this voluntarily, they didn't do it happily, and, although it was a success—they have no plans to do it again with any other products they sell or manage.

Why is it that, like an "adult" providing a cigarettes to children, GSA is allowed to continue to sell non-recycled products to government users—when recycled products are readily available, are cost competitive and of excellent quality? Why is it that GSA won't even list the CPG compliant products first on the web site?

To use Federal "demand pull" to successfully form a commercial marketplace for collected materials, a lot of very different strings have to pull forward at the same rate and force to not imbalance the underlying markets. Like the reins of a team of horses used to pull a sleigh, the strings to be carefully manipulated, in my view, include:

- Excellent information on the sources which can supply recycled content products.
- Support by the purchasing agencies—including EPA setting an example. This support must be both top-down and bottom-up to be truly successful.
- Provision of quality products at reasonable, although not necessarily equal or lower prices.
- Incentives for Agency compliance (or disincentives for non-compliance!)
- Program management, with Reporting and congressional oversight.

Mr. Chairman, it has been 25 years since this law was passed and more than 10 years since Congress held any hearings on the implementation of this law. I applaud this committee for holding this hearing today and strongly urge you to continue these efforts.

United States General Accounting Office

GAO

Testimony

Before the Committee on Environment and Public Works, U.S. Senate

For Release on Delivery
Expected at 9:30 a.m., EDT,
Thursday, July 11, 2002

FEDERAL PROCUREMENT

Government Agencies' Purchases of Recycled-Content Products

Statement for the Record by
David G. Wood
Director, Natural Resource and Environment Issues

GAO-02-928T

Mr. Chairman and Members of the Committee:

We are pleased to discuss the results of our work on the federal government's purchase of recycled products. As you know, the federal government buys about $200 billion of products and services each year to conduct its operations. Through its purchasing decisions, the federal government has the opportunity to affirm goals for preventing pollution, reducing solid waste, increasing recycling, and stimulating markets for environmentally preferable products and services.

Recognizing this potential, the Congress, in the Resource Conservation and Recovery Act of 1976 (RCRA), directed the Environmental Protection Agency (EPA) to identify products made with recycled waste materials or solid waste by-products and to develop guidance for purchasing these products. The act also requires procuring agencies to establish programs for purchasing these products. Procuring agencies, which can include contractors and state and local government grantees, are exempt from this requirement only under certain conditions and must document their reasons for not purchasing the recycled-content products. The Office of Federal Procurement Policy, in the Office of Management and Budget (OMB) is responsible for coordinating the RCRA requirements with other federal procurement policies, and for reporting to the Congress every 2 years on federal agencies' progress in implementing these requirements.

This statement is based on our June 2001 report entitled *Federal Procurement: Better Guidance and Monitoring Needed to Assess Purchases of Environmentally Friendly Products* (GAO-01-430). Specifically, my statement discusses federal agencies' (1) purchases of recycled-content products and (2) efforts to promote awareness of recycled-content products. In preparing the report, we surveyed the four agencies that account for about 85 percent of all federal procurements—the departments of Defense and of Energy, the General Services Administration (GSA), and the National Aeronautics and Space Administration (NASA)—and two major grant-awarding agencies—the departments of Transportation and of Housing and Urban Development.

In summary:

- Twenty-five years after RCRA was to launch a revolution in federal purchases of recycled-content products, the success of this effort is largely uncertain. EPA accelerated its designation of recycled-content products in the 1990s—the agency had identified 54 products with recycled content at the time of our report. However, we could not determine the extent to which the large procuring agencies purchase these products because most lack reliable and complete data on such purchases. The agencies lack data primarily because their procurement systems are generally not designed to track these purchases—particularly those made through contracts (which account for at least 90 percent of federal procurement dollars); with federal purchase cards (used like credit cards); or by grantees.

- While procuring agencies acknowledged that EPA's designation of recycled-content products, by itself, is not sufficient to ensure that the products are purchased, their efforts to promote awareness have been limited. The agencies told us that their staff members often are either not aware of these products or not able to locate them in their areas. In addition, the agencies have made little effort to ensure that grantees are aware of their obligations to purchase recycled-content products, and most do not have any reliable means of even identifying contracts that call for the use of these products. Furthermore, in the absence of credible data on purchases, the agencies have not put programs in place to review and monitor their progress in complying with the RCRA requirements.

Our report made a number of recommendations to improve the agencies' programs to purchase EPA-designated recycled-content products. In October 2001, OMB responded to our recommendations. Regarding our recommendations for additional guidance to federal agencies, OMB stated that it is reviewing its current reporting requirements and plans to issue more specific guidance as necessary. As of July 2002, it had not issued additional guidance. In response to our recommendations, effective October 1, 2001, OMB has added a new data field to its procurement data information system to collect

information on the procurement of EPA-designated products for contracts of $25,000 or more. This new field allows agencies for the first time to measure their contractors' purchasing of recycled-content products. Although OMB anticipated that this information would significantly improve compliance and reduce agency administrative burdens, it still does not provide complete information on agencies' purchases of these products because it does not include purchases from federal purchase cards or grantees. Finally, as we recommended, OMB agreed to consider incorporating the RCRA requirements into the common rule the next time it updates the rule.[1] (It has not set up a time frame for updating the rule.) In addition, a Federal Environmental Executive official told us that as of July 2002, neither his organization nor EPA had developed a process to provide agencies with current information on the availability, or how to more effectively promote, the purchase of recycled-content products.

Background

The use of federal procurement to promote environmental goals has gained increasing emphasis since the 1976 RCRA legislation. RCRA section 6002 requires each procuring agency[2] that purchases more than $10,000 of an item (in a fiscal year) that EPA has designated as available with recycled content to have an affirmative procurement program in place to ensure that the agency purchases recycled-content products to the maximum extent practicable. This requirement applies both to purchases made directly by the agency and to purchases made indirectly by their contractors and grantees.

To comply with RCRA, an agency's affirmative procurement program must consist of four elements: (1) a preference program that requires the agencies to institute practices and procedures favoring the specification and procurement of recycled-content products; (2) an internal and external promotion program to actively promote the purchase program for recycled-content products; (3) procedures for obtaining pre-award estimates, and post-award certifications of recovered materials content in the products

[1] The common rule is a set of governmentwide rules and conditions under which grants to state and local governments are administered.
[2] Procuring agencies are federal agencies, state and local agencies using appropriated federal funds, and their contractors.

to be supplied under any contracts over $100,000 and, where appropriate, reasonably verifying those estimates and certifications; and (4) procedures for monitoring and annually reviewing the effectiveness of the affirmative procurement program to ensure the use of the highest practicable percentage of recycled-content materials available.

A 1998 executive order strengthened the RCRA requirements. Specifically, the order clarified some existing requirements and defined more clearly the duties of the Federal Environmental Executive—who is appointed by and reports to the President—and the responsibilities of agency environmental executives in implementing certain initiatives and actions to further encourage the "greening" of the government through federal procurement. A change to the Federal Acquisition Regulations (FAR) formalized the 1998 executive order by making it a requirement for all executive agencies and contracting officers to follow when buying products, including supplies that are furnished under a service contract. The changes to the FAR also emphasized policies to purchase products containing recycled-content material and other environmentally preferable products and services when feasible.[3]

Federal agencies must also comply with acquisition reform legislation enacted during the 1990s. In response to concerns about the government's ability to take advantage of the opportunities offered by the commercial marketplace, these reforms streamlined the way that the federal government buys its goods and services. For example, the reforms introduced governmentwide commercial purchase cards, (known as federal purchase cards) similar to corporate credit cards, to acquire and pay for goods and services of $2,500 or less.[4]

The Office of the Federal Environmental Executive has overarching responsibilities to advocate, coordinate and assist federal agencies in acquiring recycled-content products

[3]The FAR specifies rules that agencies must follow in their procurement actions. On June 6, 2000 the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council published a final rule amending the FAR to implement Executive Order 13101, Greening the Government through Waste Prevention, Recycling, and Federal Acquisition, dated September 14, 1998.

[4] The Federal Acquisition Streamlining Act of 1994 required federal agencies to enter into multiple award contracts and introduced the micro-purchase threshold for purchase cards up to $2,500. The Clinger-Cohen Act of 1996 allowed agencies to authorize more employees to make purchases up to $2,500.

and services. In 1999, a White House task force chaired by the Federal Environmental Executive issued a strategic plan that calls upon all executive agencies to demonstrate significant increases in the procurement of recycled-content products from each preceding year through 2005. Each agency's environmental executive is responsible for overseeing the implementation of the agency's affirmative procurement program and for setting goals to increase purchases of recycled-content products in accordance with the strategic plan. The Federal Environmental Executive prepares a biennial report to the President on agencies' actions.

Although all procuring agencies are required to have an affirmative procurement program and to track their purchases of recycled-content products, the Office of Federal Procurement Policy and the Office of the Federal Environmental Executive—who coordinate their information requests—require annual purchase reports only from the top six procuring agencies. These six agencies are the departments of Defense, Energy, Transportation, and Veterans Affairs; GSA; and NASA. The Office of Federal Procurement Policy and the Office of the Federal Environmental Executive issue a joint report to the Congress every 2 years on these agencies' progress in purchasing the EPA-designated products.

Federal Purchases of Recycled-Content Products Could Not Be Determined Because of Incomplete Information

While EPA accelerated its efforts in the 1990s to identify and issue guidance on procuring products with recycled content, we could not determine the extent to which the four major federal procuring agencies purchase these products because their procurement systems do not clearly identify purchases of recycled-content products. In addition, the agencies do not receive complete data from their headquarters and field offices or their contractors and grantees. As a result, these agencies generally provide estimates, not actual purchase data, to the Office of Federal Procurement Policy and the Office of the Federal Environmental Executive. According to three of the four agencies—including Defense, which accounts for over 65 percent of federal government

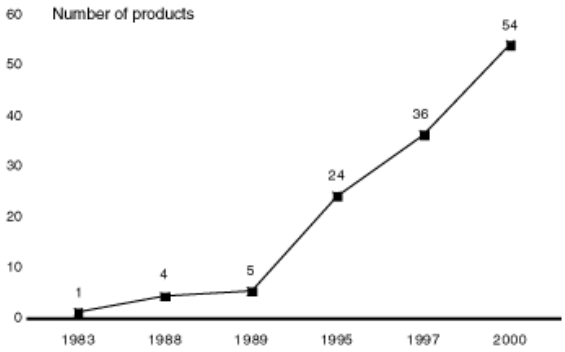
procurements[5]—even these estimates are not reliable. In addition, agencies' efforts to promote awareness of purchase requirements for recycled-content products have had limited success, and their efforts to monitor progress have principally relied on the estimated data they report. A White House task force made a number of recommendations to improve data collection, particularly from federal purchase card users and contractors. One of these recommendations—adding a new data field that tracks the purchases of recycled content products from the agencies' contractors—was instituted in the fall of 2001. However, it does not include federal purchase card users, grantees, or the agencies themselves.

EPA Has Accelerated the Designation of Products With Recycled Content

In the early 1980s, the Congress directed EPA to issue guidance for five products with recycled content, three of which the Congress designated: cement and concrete containing fly ash,[6] recycled paper and paper products, and retread tires. Between 1983 and 1989, EPA issued guidance for these three products and for re-refined lubricating oil and building insulation.[7] EPA did not issue guidance for any more products until 1995. Between 1995 and 2000, EPA increased the total number of designated products to 54 and issued comprehensive procurement guidance to use in purchasing these products. Figure 1 shows the increases in the number of designated products with recycled content.

[5] This figure includes all Defense procurements—including weapons systems and research and development funds, which are unlikely to include the purchase of recycled-content products. The figure also includes service contracts—which may or may not involve the purchase of these products.
[6] Fly ash is the residue that results from the combustion of pulverized coal.
[7] U.S. General Accounting Office, *Solid Waste: Federal Program to Buy Products With Recovered Materials Proceeds Slowly*. GAO/RCED-93-58 (Wash., D.C.: May 17, 1993).

Figure 1: EPA's Designation of Recycled-Content Products, 1983 through 2000.



EPA has identified eight categories of recycled-content products. These are listed below, with examples of products in each category.

- **Construction products:** Building insulation containing recycled paper or fiberglass; carpeting containing recycled rubber or synthetic fibers; floor tiles made with recycled rubber or plastic.
- **Landscaping products**: Landscaping timbers and posts containing a mix of plastic and sawdust or made of fiberglass; hydraulic mulch containing paper; compost made from yard trimmings and/or food waste.
- **Nonpaper office products:** Trash bags containing recycled plastic; waste receptacles containing recycled plastic or steel; and binders containing recycled plastic or pressboard.
- **Paper and paper products:** Copier paper, newsprint, file folders, and paper towels and napkins, all of which have recycled fiber content.
- **Park and recreation products:** Picnic tables and park benches containing recycled plastics or aluminum; playground equipment containing recycled plastic or steel; fencing using recycled plastic.

- **Transportation products:** Parking stops containing recycled plastic or rubber; traffic barricades containing steel or recycled fiberglass; traffic cones containing recycled PVC or rubber.
- **Vehicular products:** Engine coolants (antifreeze), re-refined motor oil and retread tires, all of which contain recycled content materials.
- **Miscellaneous products:** Awards and plaques containing glass, wood or paper; drums containing steel or plastic; signs and sign posts containing plastic, steel, or aluminum.

EPA officials have also identified 11 additional recycled content products for designation and expect to issue purchasing guidelines for them in the fall of 2002. According to EPA officials, the list of possible products continues to evolve because new products are always being developed and existing products may be changed, adding more recycled material.

However, the four major procuring agencies said that the list contains more items than they can feasibly track the purchases of and that targeting their tracking efforts on the major items they purchase would be a better use of their resources. The four agencies also told us that it is costly and burdensome to update their tracking programs each time EPA adds new items and to document whether or not their purchases of these products meet the $10,000 threshold. Defense and GSA officials added that instead of continuing to add products to the designated list, EPA should work with the agencies to assist them in buying products already identified. Specifically, they said that (1) EPA should provide more information on the availability of the individual products, since listed products may not be available in all regions of the country; and (2) EPA should identify the manufacturers and costs of the recycled-content products and take the lead in promoting them, thus making it easier for federal agencies to buy these products. Officials at the Office of the Federal Environmental Executive agreed with Defense's and GSA's assessment regarding purchasing difficulties.

Information on Agencies' Purchases of Products With Recycled-Content is Largely Unavailable

Three of the four major procuring agencies generally do not provide credible and complete information on their purchases of recycled-content products because (1) they do not have automated tracking systems for these products and (2) the information they do collect and report does not include a significant portion of their procurements, such as those made by contractors.

Agencies Lack Automated Tracking Systems for Recycled-Content Products

Defense, GSA, and NASA reported that they cannot use their automated procurement systems to track recycled-content products purchased by officials in their headquarters and field offices and by their contractors and grantees. As a result, they collect information manually, a process they find costly and time-consuming. This is particularly the case for agencies with large field structures such as Defense. Defense and GSA reported that they can electronically track recycled-content products purchased from their automated central supply systems, which also records purchases made by other agencies, if the products are included in Defense and GSA stock inventories. The systems do not track items purchased from vendor lists.

According to Defense and GSA officials, recent improvements to these central supply systems include electronic catalogues of environmentally friendly products linked to an automated shopping system, which will allow the agencies to better track and report on other agencies' purchases of recycled-content products.

NASA and Energy offices also manually collect purchase data on recycled-content products but enter the information into automated systems for tracking and reporting. However, they have not integrated these automated systems with their agencywide procurement systems. Despite this lack of integration, Energy officials indicated that with their current tracking system, they are able to determine the extent to which most of their offices and contractors are purchasing recycled-content products. NASA officials reported that their system provides more limited data on some contractors.

Defense and GSA officials acknowledged that their data collection would improve if they had on-line electronic systems for recycled-content products linked to agencywide procurement systems. However, the additional cost of developing such an integrated system would not be worthwhile, according to these officials. For example, Defense believes that the cost of developing and maintaining a reliable system to produce the data needed to comply with current reporting requirements would far exceed the value of the information produced.

Major Purchase Sources are Excluded From the Agencies' Reports

The data the agencies collect and report to the offices of Federal Procurement Policy and of the Federal Environmental Executive generally exclude several sources of information. First, data are excluded regarding federal purchase card acquisitions, which are increasing and as of fiscal year 2001 accounted for about 5.5 percent of all federal purchases. The four procuring agencies reported that they cannot track federal card purchases of recycled-content products made in the private sector, such as desk accessories, tires, and lubricating oil, unless they establish an internal system that relies on the card users to keep records. Defense and GSA reported that they do not have such systems. Defense officials noted that requiring purchase card users to keep logs is in conflict with acquisition reforms intended to simplify the procurement process for purchases below $2,500 (micropurchases).[8] Energy and NASA officials stated they do track and report purchases of recycled-content products through federal purchase cards and have established processes for staff to keep records for entry into their database for the recycled content program.

Second, the agencies' data are also incomplete because they may exclude information on purchases made by some of their component organizations. For example, Defense reported that the military services provide mostly estimated data, which they do not verify to determine accuracy and completeness. Furthermore, these estimates do not

[8] The use of federal purchase cards was encouraged in 1993 by the National Performance Review, which identified the purchase card as a major acquisition reform and recommended that all federal agencies increase their use of the card to cut the red tape normally associated with the federal procurement process.

include all of the services. For example, the Army provided no information for Defense's report to the Office of Federal Procurement Policy and the Office of the Federal Environmental Executive for fiscal years 1998 and 1999, and the Air Force and Navy provided limited purchase data. The lack of reliable data from Defense is of particular concern in evaluating the effectiveness of the RCRA program because Defense's procurements account for over 65 percent of total federal procurements reported for fiscal year 1999. Defense reported that it purchased recycled-content products worth about $157 million out of total fiscal year 1999 procurements of about $130 billion. (The total fiscal year procurement figure of $130 billion includes $20 billion for research and development and $50 billion for major weapons systems that are unlikely to involve the procurement of recycled-content products. In addition, it includes $53 billion for service contracts that may or may not involve the purchase of recycled-content products. Defense officials indicated that some of these figures may overlap.)

Third, the agencies lack complete data on purchases made by contractors and grantees. This data gap is potentially significant because contracts over $25,000 account for almost 90 percent of all federal procurements. The agencies reported the following: Defense has no information on contractors' purchases; GSA has limited information on some contractors' purchases; Energy, which spends about 94 percent of its appropriations on contractors, collects purchase information from about 86 percent of its contractors; and NASA collects purchase data from on-site contractors but receives little or no data from off-site contractors.

Fourth, the agencies lack data on grantee purchases. State and local agencies receiving federal grants may be "procuring agencies" under RCRA. If they meet the $10,000 threshold – that is, if they spend more than $10,000 on a designated item – they are subject to the affirmative procurement program requirement and to buying the recycled-content products on EPA's list. However, grantees are not required to report their purchases of EPA-designated products with recycled content. Also, executive orders do not apply to grantees. Because of overall federal efforts to reduce the paperwork (reporting) burden on grantees, federal agencies stated that they cannot request

information from grantees without OMB approval. Consequently, six of the agencies we reviewed, including the major grant-making agencies—DOT and HUD—reported that they do not obtain any information on grantees' purchases.

A White House task force workgroup on streamlining and improving reporting and tracking, cochaired by the Federal Environmental Executive and OMB's Office of Federal Procurement Policy, has made a number of recommendations to improve data collection from federal purchase card users and contractors. Aside from instituting additional data requirements, the task force is planning to begin a pilot project with banks and willing vendors to identify and report recycled-content products purchases made with federal purchase cards. However, as of July 2002, it is not sure when this effort will begin. We believe that this effort would provide useful additional information regarding purchase card users' compliance with the RCRA requirements.

With respect to contractors, the workgroup recommended revising the Federal Procurement Data System—a system that collects information on procurements on a governmentwide basis for contracts over $25,000.[10] The revised data system would require the procuring official to indicate whether the contract includes (1) recycled-content products, and (2) appropriate language from the FAR to ensure that the contractor is notified of the requirements with respect to purchasing recycled-content products. If these changes are implemented, the agencies will no longer have to manually collect and report on their individual purchases of recycled-content products. Although the revised system will not provide information on the products themselves or of the dollar amount associated with them, it would allow agencies for the first time to identify contracts subject to recycled-content product purchases and to measure their annual progress in increasing the percentage of contracts containing affirmative procurement clauses.

---

[9] GSA reported that it does not administer any grants.

[10] This data system, operated by GSA on behalf of the Office of Federal Procurement Policy, has been in operation since 1978. It has undergone numerous changes over the years and is considered to be outdated. A multiagency task force is currently considering replacing this system.

Agencies' Efforts to Promote Recycled-Content Products Have Generally Not Increased Awareness

The four major procuring agencies reported efforts to promote awareness of the requirement to purchase recycled-content products, but several studies indicate that the success of these efforts has been limited. In addition, although RCRA requires federal agencies to review and monitor the effectiveness of their RCRA program efforts, only Energy has taken any steps beyond the data collection efforts discussed earlier.

Success of Promotion Efforts Is Limited

Studies of the agencies' affirmative procurement programs report that the agencies are not effectively educating procurement officials about the requirement to buy EPA-designated recycled-content products. This lack of awareness is a major or contributing factor to inaccurate data and noncompliance with implementing affirmative procurement programs, according to our survey of the agencies, as well as the reports by the GSA and NASA inspectors general, the Air Force's Internal Audit Agency, and a fiscal year 2000 EPA survey of 72 federal facilities.[11]

Efforts to promote the purchase of recycled-content products by government agencies, their contractors, and grantees can occur government- or agency-wide. Governmentwide efforts include those conducted by the Office of the Federal Environmental Executive, which actively promotes, coordinates, and assists federal agencies' efforts to purchase EPA-designated items. For example, the Office of the Federal Environmental Executive has helped increase agency purchases of EPA-designated products by encouraging GSA, the Defense Logistics Agency, and the Government Printing Office to automatically substitute recycled-content products in filling orders for copier paper (begun in 1992) and lubricating oil (begun in 1999). This effort has increased sales of recycled-content copier paper from 39 percent to 98 percent at GSA and the Government Printing Office,

[11] The three audits include the NASA Inspector General *Final Report on the Audit of Kennedy Space Center's Recycling Efforts*, IG-98-017, dated June 12, 1998; the GSA Inspector General Report entitled *Review of GSA's Affirmative Procurement Program*, A71503/P/5/R97016, dated March 28, 1997; and an Air Force Audit Agency 's report on its Affirmative Procurement Program, Project Number 99052016, June 1999.

according to the Office of the Federal Environmental Executive. GSA now carries only recycled-content copier paper. The Defense Logistics Agency reported that its sales of re-refined lubricating oil increased over 50 percent from fiscal year 1999 to fiscal year 2000. Given the success of the automatic substitution program for these products, the Office of the Federal Environmental Executive is strongly encouraging agencies to identify other recycled-content products for which automatic substitution policies might be appropriate. However, this program does not apply to purchases made outside of the federal supply centers.

GSA and Defense have also placed symbols in their printed and electronic catalogues and in their electronic shopping systems to identify recycled-content products. Using the electronic catalogue, agencies can then go directly into the electronic shopping system to order these products. They will also be able to track and report these purchases. Defense and GSA are also working jointly to modify the Federal Logistics Information System to add environmental attribute codes to the products listed in that system to more easily identify environmentally friendly products.[12] The modification's usefulness may be limited, however, because this system does not automatically link the user to a system for purchasing the products identified, according to agency officials.

Energy, GSA, and Defense's Air Force, Navy, and Army Corps of Engineers have initiated alternative efforts to inform contractors of the requirement to purchase recycled-content products. Energy makes its major facility management contractors part of its affirmative procurement program team to help implement the program. Moreover, in May 2000, Energy established "green acquisition advocates" at each of its major contracting facilities. Among their duties, these advocates are to promote the RCRA program to the contractors. GSA and the three Defense components have developed "green" construction and/or lease programs that promote the use of EPA-designated products. In addition, all the agencies we reviewed have incorporated the FAR clauses pertaining to

[12] The Federal Logistics Information System is a computerized database that serves as a centralized, federal-wide repository for information on the more than 7 million items in the federal supply system. In addition to showing the name and national stock number for each item, the system provides vendor information, the item's physical characteristics, and guidance on acquiring, storing, distributing, transporting, using, and disposing of the item. Procurement officials use the system primarily to research which items are most appropriate for them to purchase.

the RCRA program into their contracts. GSA also reported that it plans to modify its acquisition manual to include a review of the list of EPA-designated products with contractors in post-award conferences.

The agencies we examined have generally not developed agency-specific mechanisms for advising grantees of their responsibility to purchase recycled-content products. Instead, they rely on OMB Circular A-102. This circular refers to RCRA and contains a general statement on the requirement for grantees to give preference in their purchases to the EPA-designated products. It does not inform them of the specific requirements they need to follow, such as developing affirmative procurement programs. Only Energy, in its financial assistance regulations, requires its grant-making program offices to inform grantees of the RCRA requirement.

Agencies' Review and Monitoring of Recycled Content Purchases Is Limited

RCRA requires federal agencies to review and monitor the effectiveness of their recycled-content programs; however, it does not define what review and monitoring should consist of. With the exception of Energy, which has established purchasing goals that its contractors must meet, the major procuring agencies limit their required annual review and monitoring functions to compiling data on their purchases of recycled-content products in order to report to the offices of the Federal Environmental Executive and Federal Procurement Policy. But as the agencies admit, these data are unreliable and incomplete. Consequently, these data do not allow the agencies to assess their progress in purchasing recycled-content products or review the effectiveness of their recycled content purchase programs. However, Defense procurement officials believe that legislation like RCRA, because of its review and monitoring requirements, is in conflict with the streamlining reforms that are intended to ease the administrative burden associated with government purchases.

We recognize that demonstrating that an agency is meeting RCRA requirements can be administratively difficult. The major procuring agencies noted that it is costly and burdensome to update their purchase tracking programs each time EPA designates

recycled-content products; each relies on costly and time-consuming manual data collection. Defense, the largest procuring agency, believes efforts to monitor and report on recycled-content product purchases conflict with the streamlining goals of procurement reform. However, RCRA requires such information.

Contact and Staff Acknowledgement

For further information on this testimony, please call me at (202) 512-6878 or Pat Gleason at (202) 512-6946. Maureen Driscoll, William Roach Jr., and Paul Schearf also made key contributions to this testimony.

(360245)

STATEMENT OF DEBORAH MACCORMAC, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, ORLANDO OFFICE OF POLLUTION PREVENTION

I am writing to express support for any new legislation and initiatives that focus on encouraging recycling at every juncture of the product lifecycle. In the 1960's companies were able to pay 2 cents and 5 cents for returned bottles. As a child, this was an exciting source of Friday night treat funds for my siblings and I. It was a way for small children to make a little money on their own, and to help the environ-

ment. It was such a good thing. We were always looking for bottles everywhere we went—24/7. Any legislation that would encourage manufactures of recyclable products to creat a refund policy for such products would have far reaching social and environmental benefits. In 2002 a premium of even a mere 10 or 15 cents per item would greatly encourage return of recyclables. This not only helps the environment in countless ways, it creates incentives, small entrepreneurs, help social disfunctionals and generates a small business sub-culture from nothing and for those who may otherwise remain lost. I encourage you to support any such policy initiative. It's a win-win for all of America.

STEVE LEUTY,
201 W. KALAMAZOO AVENUE
Kalamazoo MI 49007, July 2, 2002.

Senator JAMES M. JEFFORDS, *Chair*
Senate Committee on Environment and Public Works
Dirksen Senate Office Building
Washington, DC 20510

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS: Kalamazoo County (Michigan) government is committed to promoting a sustainable economy by procuring post-consumer recycled-content products when possible. For example, for over 5 years, 99 percent of all office paper, copier paper, and janitorial paper products purchased by Kalamazoo County government contained post-consumer recycled fiber.

A strong Federal committment to environmentally preferrable purchasing compliments local governmental efforts by supporting manufacturers which offer environmentally preferrable products.

I urge Federal departments to renew their committment to environmentally preferrable purchasing.

I also support a national bottle deposit system, so the rest of the country can enjoy Michigan's high recycling rate for depositable beverage containers.

Sincerely,

STEVE LEUTY,
Kalamazoo County Recycling Coordinator

LARRY & MARTY KARIGAN-WINTER,
558 MADISON 2410,
Huntsville, AR 72740.

SENATORS: We all know how much the Government spends. It's huge. If recycling is going to continue to be viable economically, we need consistent strong demand for products made with the very materials we are keeping out of landfills by recycling. Whatever it takes to encourage Sen. Jeffords' efforts, please let him know there is this huge need for continued and greater support by government to understand the importance to Buy-Recycled and to follow this thru with their procurement policies. The recycling industry has grown tremendously this last decade and plays an ever-increasing role in our economy. More than half of all American citizens now can recycle curbside. More citizens recycle than vote. Ten's thousands of jobs have been created. But, we need the government to buy the very products made with recycled content to get business to further their designs and to tool up to meet the demands that only government's purchasing power can boost.

It's imperative that Federal Government lead where the people are wanting their government to go. The people are doing their part. The Government needs to do theirs. Thank you for passing this message on to the people who need to hear it.

And, thank you for this opportunity,

LARRY AND MARTY KARIGAN-WINTER.

STATEMENT OF THOMAS IBSEN, SAINT PAUL, MN

I am writing to voice my support to the Senate Environment and Publics Works Committee proposal to strengthen the use of Federal procurement practices as a means of strengthening markets for recycled goods.

The Federal Government certainly is the largest employer and purchaser in the country. Practices undertaken by the GSA and other Federal agencies can play a big part in helping to guide product development toward sustainability and reuse.

Helping to close the cycle of recycling by purchasing products with a higher post-consumer recycled content is only one mechanism that the government can use to help stimulate product development in these areas.

The Federal Government might also consider restricting the purchase of certain resource intensive products such as those made of plastics when products of equal quality and durability already are constructed out of biodegradable materials. For example, packing peanuts are readily found in a cellulose-based form that dissolves in water and is made of plant cellulose produced by American farmers. Styrofoam packing peanuts produced from oil-based plastics are a landfill filler and litter the streets, parks and waters of our cities after blowing out of the trash.

Similarly, the government should consider the life of the product when making purchases. A $5 plastic stapler that breaks after a year and ends up in a land-fill is not a good choice when a sturdy metal stapler that will last 10 or more years is currently available for $15.

Our nation's government has the wonderful opportunity to set an example for State, county and municipal governments within the United States and nations across the world by adopting purchasing practices that benefit both the environment AND the tax-payers of this country. This is clearly a win-win situation.

Please investigate and continue strengthening our government's purchasing power in shaping the future of our nation and the world. Thank you for your time.

STATEMENT OF JULIE DANIEL, GENERAL MANAGER, BRING RECYCLING

Please accept this testimony for your hearing on recycling.

1) National Bottle Bill. The evidence is crystal clear. States that have bottle bills have notably higher container recovery rates than States that do not. I urge the Senate to work to get a National Bottle Bill in place. The United States, once a leader with regard to environmental issues, has fallen behind. We cannot afford to landfill precious resources and waste all the energy it took to create them. Aluminum can recycling rates are at an all time low. Only a fraction of the plastic bottles that are used to package drinks are recyclable. A National Bottle Bill should cover all beverage containers with the exception of milk.

2) Federal Procurement. "Buy Recycled". Consumers are taught to recycle, and to choose products that contain recycled content and many of us do. It is disappointing to learn that our leaders are dropping the ball on environmental purchasing. Buying Recycled is key to the success of the recycling industry. The Federal Government has a responsibility to invest in recycled content products. Huge Federal subsidies go to extractive industries; mining, oil exploration, timber harvests etc., but there are precious few for industries that use recycled feedstock to manufacture their products. This huge inequity should be addressed. The Federal Government should take a leadership position and require all paper products purchased to have a high post consumer content. The enormous buying power this represents would go a long way toward stabilizing the industry.

STATEMENT OF C. WILLIAMS

Without strong, concerted Federal procurement of recycled products, the investment made by cities, counties and State governments in recycling collection and processing will continue to be jeopardized. A number of leading-edge companies have made major investments in the needed research and technology to develop products that meet the recycled content and EPP standards. Strong, concerted purchasing by the Federal Government is absolutely necessary for these products to gain a foothold within the national economy.

The GAO report should be the benchmark for measuring what the Federal Government has accomplished, as well as the critical need to push harder for Federal agencies to implement the requirements of the Executive Orders and of RCRA.

Bottles and cans are turning the landscape of America into one continuous landfill. Except for the States that have bottle deposit bills, America is being trashed. There is no reason for not having a national deposit law. Individual States have proven these laws work.

Please do not listen to the voices of the lobbyists and big business. Listen to the voices of the voters; the people spoke recently in Hawaii.

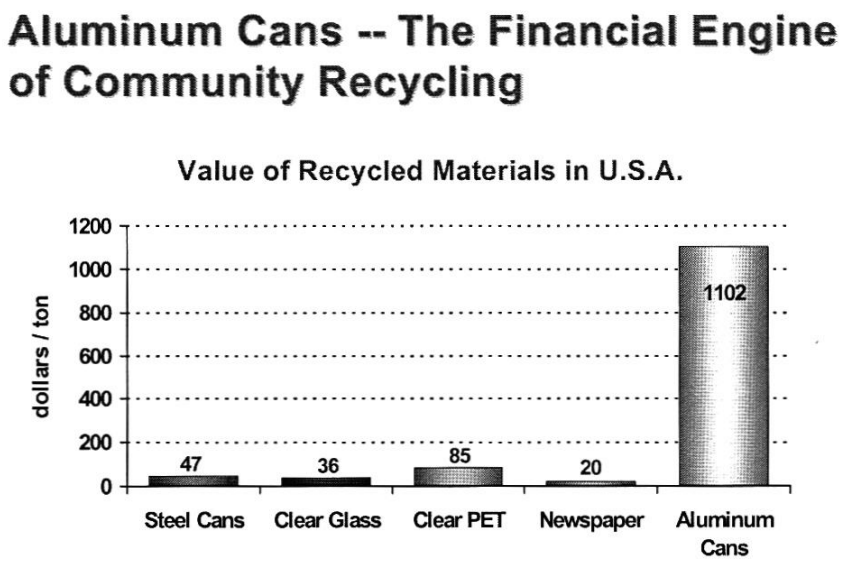
Please do what is right for all of America.

STATEMENT OF BRENDA PULLEY, VICE PRESIDENT, GOVERNMENT AFFAIRS, ALCAN ALUMINUM CORPORATION

Alcan Aluminum Corporation commends Chairman Jeffords for holding this hearing on recycling, in general, and specifically on beverage container recycling and appreciate the opportunity to submit testimony for the record.

As background, Alcan Aluminum Corporation is a U.S. subsidiary of Alcan, Inc., a multinational leader in aluminum and specialty packaging, with facilities located in 38 countries. In the United States, Alcan employees over 8,500 men and women at our packaging and aluminum primary, fabrication and recycling operations. Alcan owns and operates the world's largest, dedicated, used-beverage can recycling facility in Berea, Kentucky. We also have two other recycling facilities, which are located in Oswego, New York and Greensboro, Georgia. Currently, Alcan recycles nearly 40 percent of all the aluminum cans recycled in the United States. We are committed to increasing the number of aluminum cans that are recycled—not only is it the right thing to do environmentally, but it makes good business sense also.

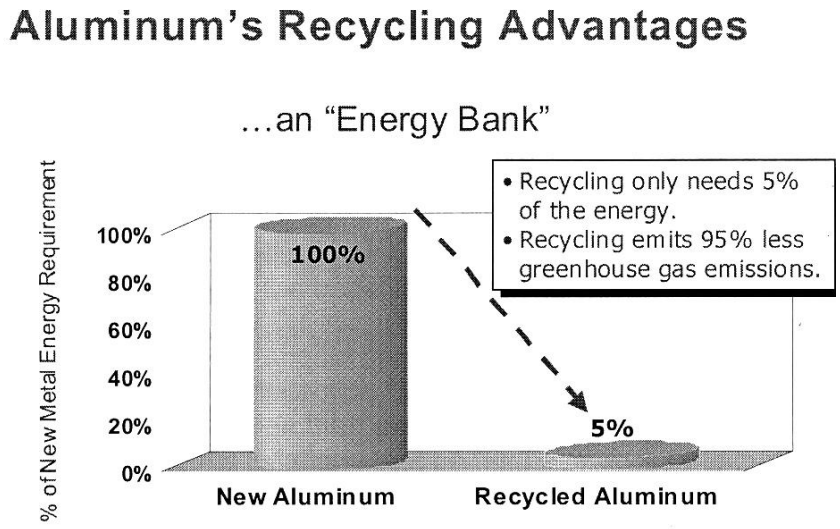
The economics of recycling aluminum. Inevitably, a discussion about recycling always focuses on whether recycling programs are cost-effective, particularly since the recycling of most commodities does not pay for itself and, therefore, does not make good sense economically. The same statements cannot be said about aluminum, however. Recycling aluminum is a solid value. It is the only beverage container material covering its cost of collection and processing, and it actually provides significant revenue to the recycling stream. As a practical matter, this means that aluminum helps defray the cost of curbside collection programs throughout the country. The average cost of curbside collection is around $240 per ton. However, the scrap value of aluminum is more than $1,070 per ton, making the net profit for recycling aluminum cans $830 per ton. No other recyclable beverage container in the waste stream has this economic benefit. Aluminum should not be considered a "solid waste." Instead, it should be recognized as a "solid value."



The environmental benefits of recycling aluminum. In addition to the economic value of recycling aluminum, there are numerous environmental benefits, as well. These include: the conservation of natural resources; reduction in litter; and reduction in the need for landfill space. Aluminum is the most unique, because unlike other commodities, it is possible to recycle aluminum an infinite number of times without losing or sacrificing quality. Recycling of aluminum beverage containers typically yields recoveries of 98 percent of the metal content.

Large amounts of energy are invested in the production of virgin aluminum. While the industry is constantly improving the energy efficiency of its processes, an increase in recycling provides a significant opportunity for reducing the demand for energy. Recycling aluminum saves nearly 95 percent of the energy and raw mate-

rials that are required to produce aluminum from ore. As a result, related emissions, which include so-called greenhouse gases, also are reduced significantly. At a time when there is such uncertainty about the future reliability of our energy sources, Congress should recognize that recycling aluminum affords the country a significant means of reducing our demand on energy, and it should fashion public policies to reflect this.



Encouraging Recycling

We at Alcan are proud that aluminum has over a 50 percent recycling rate and each aluminum can is made from post-consumer recycled content of approximately 50 percent—no other beverage container comes close to achieving this success. However, we are concerned that the rate of recycling has decreased since its all time high of 65 percent in 1992. While we are currently exploring reasons for this trend, we believe the primary factor for the declining recycling rates is the lack of interest and attention that recycling receives from policy holders, the public at-large, and the media.

Alcan constantly is searching for innovative ways to increase recycling rates. One such innovation is the partnership with Habitat for Humanity through the Aluminum Association. This program, called Aluminum Cans Build Habitat for Humanity Homes, raises money to build homes through aluminum can recycling. The money that is earned by recycling aluminum cans is donated by people across the country to Habitat for Humanity in order to help fund the building of homes for families in need. The backbone of this program is the nearly 2,000 recycling centers and the 300 Habitat affiliates across the United States that participate in the program. Since aluminum is the one commodity in the waste stream that has significant value, our partnership with Habitat demonstrates quite clearly that aluminum's value extends beyond mere dollars and cents to the communities that benefit from its value. In addition to Alcan's partnership with Habitat, the aluminum industry paid nearly $1 billion to recyclers, and schools, charities and local fundraising groups for used beverage cans.

Throughout the next few months, we are hopeful that Congress, and particularly this committee, will consider new ways to increase aluminum can recycling. To this end, Alcan respectfully submits the following suggestions for your consideration.

(1) Consumer Education—We believe that one of the most worthwhile efforts that Congress can do to encourage recycling is to hold hearings like this one, which focus attention on the importance of recycling. Consumers are the most important link in the recycling chain; however, they need to be informed periodically of the benefits and encouraged to recycle.

(2) Tax credits—Congress should provide a tax credit to encourage increased placement of recycling collection facilities in public locations. While there is more curbside collection than ever across the Nation, with a more mobile society and numerous locations that do not have access to curbside collection, the placing of more

recycling collection centers in public places could help capture those beverage containers consumed away from home. One example of such a collection facility might include "reverse vending machines" placed in grocery store and convenient store parking lots.

(3) "Recognition for recycled content"—EPA should designate aluminum cans as having meaningful recycled content (aluminum cans have approximately 50 percent recycled content, whereas other beverage containers have hardly any). Such a recognition by EPA would enable products in aluminum cans to be listed on the Comprehensive Procurement Guidelines ("CPG"), and allow the General Services Administration to require that Federal agencies purchase beverages in aluminum cans.

(4) Recognition for greenhouse gas reductions—For every ton of aluminum cans that are recycled, nearly 4 tons of greenhouse gas emissions (MCTE) are avoided, as compared to producing virgin aluminum. Credits for such greenhouse gas reductions as a result of increased recycling should be awarded to recyclers. These credits should be eligible for banking or trading.

In summary, we at Alcan thank you for your efforts to raise the interest in beverage container recycling. Recycling aluminum is a success—both economically and environmentally, but we can do more. We want to capture those cans that are going into landfills, and if this occurs, we all will benefit. By recycling more aluminum cans, aluminum manufacturers would have an "above ground mine" from which to source aluminum, and energy demand and emissions (as compared to manufacturing primary aluminum) would be reduced by 95 percent. Finally, if just half of the cans that were thrown away in 2001 had been recycled instead, the proceeds collected from recycling those aluminum cans could have built over 5,000 new homes for families in need.

We look forward to working with you and members of the committee to find and implement new ways to build on the success of aluminum cans recycling.

STATEMENT OF PAT FRANKLIN, EXECUTIVE DIRECTOR, AND JENNIFER GITLITZ, RESEARCH DIRECTOR, CONTAINER RECYCLING INSTITUTE, ARLINGTON, VA

The Container Recycling Institute (CRI) is a nonprofit research and public education organization that studies container and packaging recycling issues, and serves as a clearinghouse for information on container deposit systems. We are pleased to submit written testimony for S. 2220, the "Beverage Producer Responsibility Act," at the request of Senator Jim Jeffords. Sen. Jeffords' bill, commonly known as a national "bottle bill," pertains to a recovery system that relies on the financial incentive of a 10-cent container deposit that would be refunded to consumers when they return their beverage cans and bottles for recycling. Up until the 1960's, all soda bottles were returned to be washed, refilled and sold again. The bottle bill is modeled after a deposit system invented by the beverage industry nearly a century ago to retrieve and refill their empty bottles.

The refillable system has long since been dismantled, and beverage consumption has grown, so that about 190 billion cans and bottles are purchased by Americans each year. Several billion of these containers are littered along our nation's highways, streets, parks, beaches and scenic places, and cost millions of dolloars to pick up. The majority of the remaining discarded containers are collected for recycling, incineration, or landfilling. The modern beverage industry is a multi-billion dollar enterprise, making huge profits on the sale of beer, soft drinks and other beverages, but absorbing very little financial responsibility for disposing or recycling their cans and bottles after the beverages have been consumed. The national recycling rate now stands under 40 percent, which means that 119 billion containers are still going un-recycled each year. These wasted containers must be replaced continually with new containers made with virgin materials, using resources and processes that have enormous environmental and economic impacts on society.

In 40 of the U.S. States without container deposit legislation,[1] States, government and taxpayers pay those costs, whether it is to pick up can and bottle litter, collect and dispose of one-way, no-return containers, or recycle bottles and cans. In the ten "bottle bill" States, the deposit on beverage containers shifts the responsibility for those costs from taxpayers to beverage producers and consumers.

Members of this committee will no doubt be overwhelmed by the many facts and figures submitted pertaining to litter, solid waste and a multitude of other issues related to beverage containers and bottle bills. We encourage you to question every fact and figure, demand sources for the data provided and find out who funded the

[1]Including Hawaii, which in June 2002 became the 11th State in the Union to have a bottle bill.

studies and reports that are cited, so that you can you make an informed decision on S 2220.

We have tried in this written testimony to address the questions that generally arise in a discussion over the merits of bottle bills, and have attempted to provide sources for the statements and data herein.

WHY SINGLE OUT BEVERAGE CONTAINERS?

There are good reasons to single out beverage containers from other packaging waste. Unlike most rigid packaging,

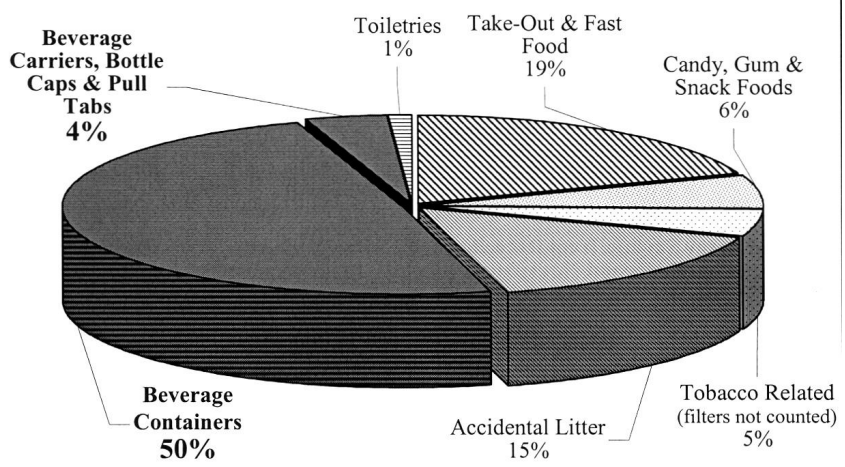
- they are very often consumed away from home for "immediate consumption;"
- they often cost more than the products they deliver;
- their manufacturing consumes huge amounts of energy;
- their manufacturing and replacement causes many types of pollution; and
- unlike mayonnaise and pickle jars, their contents are consumed in minutes.

BEVERAGE CONTAINERS AND LITTER

Picking up litter is a band-aid solution. In fact, it is no solution at all. Putting a deposit on bottles and cans stops litter at the source.

Opponents of bottle bills argue that beverage containers represent a small portion of total litter. The studies they site are generally conducted by Daniel Syrek who has been conducting litter surveys for the beverage industry for more than 20 years. I urge you to seek out surveys conducted and funded by groups and/or government agencies that do not have a vested interest in the outcome. Such surveys continually show that beverage cans and bottles represent 40–60 percent of roadside litter. Better yet, conduct your own survey along a roadside or a streambed, as the Solid Waste Coordinators of Kentucky did. They were told by the beverage industry that beverage containers were a small portion of the litter stream. They did their own statewide survey in May 1999 and found that beverage bottles and cans and their closures made up over 50 percent of roadside litter, as Figure 1 shows.

Figure 1. Kentucky Litter Composition



Source: *Litter in Kentucky, A View from the Field.* Solid Waste Coordinators of Kentucky, May 1999.

The effects of deposit systems on litter reduction are well documented, leading to an average of 70–85 percent reduction in beverage container litter, and reductions in total litter of 34 to 47 percent, as Table 1 shows.

Table 1. Litter Reduction in Deposit Law States

	New York	Oregon	Vermont	Maine	Michigan	Iowa	Massachusetts
Beverage Container Litter Reduction	70–80%	83%	76%	69–77%	84%	76%	N/A

Table 1. Litter Reduction in Deposit Law States—Continued

	New York	Oregon	Vermont	Maine	Michigan	Iowa	Massachusetts
Total Litter Reduction	30%	47%	35%	34–64%	41%	39%	30–35%

Sources: See Appendix 1

WHY RECYCLE BEVERAGE CONTAINERS? LANDFILL SPACE REDUCTION OR ENVIRONMENTAL IMPACT REDUCTION?

Opponents of bottle bills argue that beverage containers represent less than 5 percent of the waste stream by weight, and therefore do not represent a significant burden on solid waste landfills. It is misleading to compare materials in the waste stream on a weight basis. For example, according to the U.S. Environmental Protection Agency, 600 pounds of glass bottles takes up 1 cubic yard of space, while 600 pounds of aluminum cans takes up 9.6 cubic yards and 600 pounds of plastic bottles takes up 17.1 cubic yards of space. Landfills fill up by volume, not by weight. Aluminum beverage cans, and even moreso plastic bottles, take up a more landill volume per ton than denser materials such as paper or yardwaste.

More importantly, recovery priority should not be based on the proportion of materials in the waste stream as measured by weight or volume, but rather on the materials that are most energy-and emissions-intensive.

Table 2. Energy Savings from Recycled Beverage Containers and Newspapers

(in millions of BTU's)

Material	Energy needed to produce one ton of product from	
	Virgin Materials	Recycled Materials
Aluminum	194.0	45.0
PET	97.2	32.2
HDPE	73.0	13.0
Steel	56.1	44.8
Glass	14.5	13.2
Newsprint	33.5	31.0

Source: Energy Implications of Recycling Packaging Materials, Linda L. Gaines and Franklin Stodolsky, Argonne National Laboratory, 1994.

Table 2 presents a comparison of the energy requirements of producing new products from virgin materials versus recycled materials. Aluminum and plastic beverage containers are low in weight but high in raw materials and energy usage. At current rates of recycling, Americans are squandering the energy equivalent of about 43 million barrels of crude oil annually by failing to recycle 119 billion beverage cans and bottles, as Appendix B–1 shows.

Beverage container waste also contributes significantly to greenhouse gas emissions compared to other materials in the wastestream. As Appendix B–2 shows, 4.7 million tons of greenhouse gases were produced to just to replace the 119 billion wasted beverage cans and bottles with new containers made from virgin materials, compared to 4.3 million tons of greenhouse gases produced to replace wasted newspapers. Other environmental effects from replacing 119 billion wasted containers annually include habitat loss due to strip mining for ores, air emissions contributing to acid rain and smog, and groundwater contamination.

BEVERAGE CONTAINER RECYCLING IN THE UNITED STATES

Beverage containers, especially plastic bottles and aluminum cans, are among the most valuable and resource rich materials in the waste stream. Unfortunately, recycling rates are declining and beverage container waste is increasing. At present, the average national recycling rate for beverage containers is about 40 percent, as Table 3 shows.

Table 3. What happens to beverage containers sold in the United States?

	Sold (billions)	Recycled (billions)	Wasted (billions)	Recycling Rate	Wasting Rate
Aluminum	99.8	49.1	50.7	49.2%	50.8%
PET	40.0	10.0	30.0	25.0%	75.0%

Table 3. What happens to beverage containers sold in the United States?—Continued

	Sold (billions)	Recycled (billions)	Wasted (billions)	Recycling Rate	Wasting Rate
HDPE	13.8	4.4	9.4	31.9%	68.1%
Glass	36.1	11.3	24.8	31.3%	68.7%
Total	189.7	74.8	114.9	39.4%	60.6%

Source: CRI calculations based on data from Beverage Marketing Corporation, Glass Packaging Institute, American Plastics Council, Aluminum Association, and the U.S. Department of Commerce, for year 2001.

Notes: Used aluminum beverage cans imported for recycling are not included in the number of cans recycled because they were not sold in the U.S. Glass figures are estimates. HDPE rates are for 1999.

This national average would be even lower if not for the 10 bottle bill States that pull it up. Data gathered by CRI from government officials in the ten deposit States show that deposit systems alone recover an average of 78 percent of beverage containers sold. That means that the recycling rates in non-deposit States is approximately 23 percent on average, and even lower in States with limited curbside and dropoff recycling programs.

In March 2002, a report titled "Understanding Beverage Container Recovery: A Value Chain Assessment" was released by a unique group called "Businesses and Environmentalists Allied for Recycling." The report was the culmination of a project that brought together 24 stakeholders including the Coca-Cola Company, Waste Management, the Container Recycling Institute and Tomra North America, a manufacturer of reverse vending machines. The report found that container deposit systems far outperform curbside recycling systems in recycling beverage containers, with deposit systems in the nine traditional deposit States recycling 422 beverage containers per capita, as opposed to 127 containers per capita recycled through curbside programs in the 40 non-deposit States.

The report also found that costs of a traditional deposit system can be reduced significantly when reverse vending machines are used to recover containers and when the need for brand sorting of containers is eliminated.

OVERALL STATEWIDE RECYCLING RATES

Opponents often argue that non-bottle bill States such as New Jersey, Minnesota and others are recycling a larger portion of the waste stream than bottle bill States. First, it is important to note that States do not all use the same methodology to calculate the recycling rate, thus it can be like comparing apples to oranges. That said, according to a survey conducted by BioCycle Magazine, six of the States with the highest recycling rates in the year 2000 also have some form of a bottle bill in effect. Deposit systems are enhancing curbside programs in ten States. Furthermore, eight out of ten (80 percent) of all bottle bill States recycled one third or more of their State's municipal solid waste (including yard waste), while only 11 out of 40 (28 percent) of the non-bottle bill States reached a recycling rate greater than 33 percent.

Table 4. Recycling Rates for All MSW in Selected States (2000)

1. Delaware *	59%
2. Arkansas	45%
3. California *	42%
4. Minnesota	42%
5. New York *	42%
6. Maine *	40%
7. Oregon *	39%
8. Massachusetts *	38%
9. New Jersey	38%
10. Missouri	38%

* Denotes Bottle Bill State

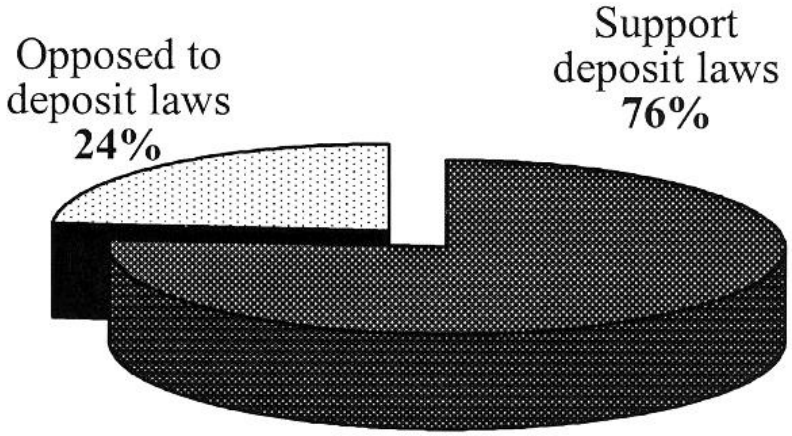
Source: ''State of Garbage,'' BioCycl, December 2001.

PUBLIC SUPPORT FOR DEPOSITS

Bottle bills enjoy overwhelming public support. Dozens of statewide and national surveys have been conducted over the past twenty-five years, and support is almost always in the 75 to 80 percent range. How many elected officials win by a 3 to 1 margin? Deposit foes argue that the questions in these surveys are worded so as

to elicit positive responses, and that people prefer the convenience of curbside programs. Yet in 30 years, voters in all 10 deposit States have rejected repeated attempts to repeal their bottle bills.

Figure 2. Bottle Bills are Popular with the Public



Source: Peter D. Hart Research Associates.

BOTTLE BILLS AND BEVERAGE SALES

It is extremely difficult to determine the impact of deposit laws on beverage sales. Many factors unrelated to deposit laws have contributed to varying consumption patterns, including changes in the legal drinking age, fluctuations in tourism, industry price increases and general economic conditions. In Michigan, for example, the year the deposit law was enacted coincided with one of the worst recessions in recent history, with unemployment in double digits and tens of thousands of residents moving to the Sun Belt.

The general pattern of beverage sales in deposit law States has been a slight decline followed by a return to normal growth patterns. Sales figures for a 3–5 year period after a deposit law was passed show sales increased at or above the national average in most of the States with deposit laws. Shortly after implementation of the Massachusetts bottle bill, Donald Dowd, Vice President of Coca-Cola New England, was quoted in a Boston Globe news article as saying, "Our prices pre-and post-bottle bill were the same."

IS THE BOTTLE BILL A TAX?

Opponents call the bottle bill a tax, but as one Virginia State senator puts it, "I sure wish all my taxes were 100 percent refundable." Deposit law oppenents also do not acknowledge that at present, over 50 percent of Americans are already paying taxes to collect beverage containers through municipal, publicly funded curbside recycling programs. Millions more without any recycling access are paying taxes to have their containers buried in a landfill or burned in an incinerator.

HAVE ANY BOTTLE BILLS BEEN REPEALED?

The first U.S. bottle bill was enacted 31 years ago in Oregon. By 1986, ten U.S. States with 30 percent percent of the American population had enacted deposit laws. Despite continued attempts by the beverage industry to overturn existing container deposit laws, no State bottle bill has ever been repealed. In early 2002, the

country's only local deposit law, in Columbia, Missouri, was repealed by voter referendum after an intense battle in which the beverage and grocery industries outspent bottle bill supporters by at least 4 to 1. Overshadowing this local defeat was the passage of the nation's 11th bottle bill in Hawaii, in April 2002. Despite lobbying efforts by the beverage and retail industries, a coaliton of State and local government employees, environmentalists, businessines, and citizen groups (including elementary schoolchildren) waged a successful campaign to pass the historic bill—the first in 16 years. They persuaded State legislators that a bottle bill would conserve resources and was good for business: keeping waste out of the islands' limited landfills, and promoting tourism by keeping Hawaii's exquisite beaches and parks clean.

ADDRESSING THE DEPOSIT VS. CURBSIDE DEBATE

The beverage industry contends that they are in favor of recycling their products, but says the best way to do so is through publicly funded curbside programs and drop-off centers. They believe deposit laws should be eliminated because they "duplicate" curbside programs.

This is not true. The bottle bill is not a replacement, substitute, or duplication of these important curbside and dropoff programs, but rather a complement. An approach incorporating a variety of recycling programs achieves a higher recovery rate than any one program alone.

In addition, only 50 percent of the U.S. population is now served by curbside programs. 140 million people live in apartments, rural areas, or other locations where curbside service is not available. In fact, the national trend of implementing new curbsideprograms has leveled off, as these programs have become increasingly expensive for municipalities to operate. Some communities—most notably New York City—have reduced or even suspended their curbside programs. Without deposit laws to pick up the slack, millions more tons of valuable resources would be landfilled—at taxpayer expense. By themselves, curbside programs have not succeeded in capturing a majority of beverage containers in the United States, despite a tripling in the curbside access during the 1990's. While the number of curbside programs operating nationally rose from 2,711 in 1990 to 9,709 in 2000, the aluminum can recycling rate plunged from 61 percent to 49 percent. The PET plastic beverage bottle recycling rate has dropped from a high of 38 percent in 1995 to 26 percent in 2000, and the glass bottle recycling rate has stagnated around 30 percent—with much of the glass collected at curbside being landfilled in the end because it it is of too low a quality to be successfully marketed. Deposit systems address this problem by creating a cleaner material stream for all recyclable commodities.

BOTTLE BILLS ALSO ADDRESS IMMEDIATE CONSUMPTION

The apparent contradiction between climbing curbside recycling access and dropping recycling rates exists in large part due to a national trend of increased away-from-home, or immediate, beverage consumption. As more beverages are consumed on the go, more containers end up in the trash in non-deposit States. Lacking convenience and a financial incentive, most consumers do not bring these containers home to recycle in their curbside bins. Deposit laws, especially those that provide 10-cent refunds, provide the financial incentive needed to recycle these immediate consumption cans and bottles.

WHO SHOULD PAY FOR BEVERAGE CONTAINER RECYCLING?

There are costs to society associated with the manufacturing, disposal and recycling of the estimated 190 billion beverage containers sold in the United States each year. While bottle bills are not a "cure-all" for litter and solid waste reduction, they have successfully attained beverage container recycling rates of 70–95 percent in the States with deposit legislation, as opposed to beverage container recycling rates of only 20–30 percent in non-deposit States. Bottle bills also shift many of the costs of container collection and processing from government and taxpayers to producers and consumers of the wasteful products.

The deposit system has a proven record of success in ten States and should be an integral part of a comprehensive approach to waste diversion, litter control and resource conservation.

APPENDIX A

Sources for Table 1

Table 1—Litter Reduction in Bottle Bill States

State	Beverage Container Litter Reduction	Total Litter Reduction
New York	70–80 % [1]	30 % [2]
Oregon	83 % [3]	47 % [4]
Vermont	76 % [5]	35 % [6]
Maine	69–77 % [7]	34–64 % [8]
Michigan	84 % [9]	41 % [10]
Iowa	76 % [11]	39 % [12]
Massachusetts	N/A	30–35 % [13]

[1] Final Report of the Temporary State Commission on Returnable Beverage Containers, March 27, 1985, p. 62.

[2] Projection from Center for Management Analysis, School of Business and Public Administration of Long Island University. New York State Returnable Container Act: A Preliminary Study (1984).

[3] Oregon Department of Environmental Quality, Oregon's Bottle Bill: The 1982 Report, p. 26.

[4] Ibid.

[5] U.S. General Accounting Office. Report to the Congress by the Comptroller General of the United States, Potential Effects Of A National Mandatory Deposit On Beverage Containers, December 7, 1977, p. 54.

[6] Ibid.

[7] U.S. General Accounting Office. Report by the Comptroller General of the United States, State's Experience With Beverage Container Deposit Laws Shows Positive Benefits, December 11, 1980, p. 9. [8] Ibid.

[9] Michigan Department of Transportation, Maintenance Division. Michigan Roadside Litter Composition Survey, Final Report, December 1979.

[10] Ibid.

[11] Iowa Department of Transportation, Highway Division. Litter Survey, April 1980.

[12] Ibid.

[13] Environmental Action Foundation. Bottle Bills in the 1980's: A Handbook for Effective Citizen Action, August 1987.

Appendix B-1. Energy Saved by Recycling; Squandered by Wasting

Material	Annual Wasting in the United States (b) (billions)	Annual Wasting in the United States (b) (thousands of tons)	Energy required (a) to make one ton of product from 100% Virgin materials	Energy required (a) to make one ton of product from 100% Recycled materials	Energy Saved by Recycling (a) (million Btu per ton)	Energy Saved by Recycling (a) % savings	Energy Squandered Annually by U.S. Wasting (a) (trillion Btu)	Energy Squandered Annually by U.S. Wasting (a) million bbls crude oil equivalent
Aluminum cans	50.7	760	194.0	45.0	122.5	63%	93	16.1
PET bottles	34.5	1292	97.2	13.0	84.2	87%	109	18.8
HDPE bottles	9.4	470	73.0	13.0	60.0	82%	28	4.9
Glass bottles	24.2	5280	14.5	13.2	1.3	9%	7	1.2
Newspapers	n/a	4530	33.5	31.0	2.5	7%	11	2.0
Total Beverage Containers	**118.8**	**7,802**					**248**	**42.9**
Newspapers		**4,530**						

Appendix B-2. Greenhouse Gas Emissions: Recycling vs. Wasting

Material	Annual Wasting in the United States (b) (billions)	Annual Wasting in the United States (b) (thousands of tons)	Greenhouse Gas Emissions Reduced by Recycling (c) (MTCE/ton)	Annual Greenhouse Gas Emissions Produced by Wasting (c) (millions of tons/year)	Greenhouse Gas Emissions Avoided by Recycling 80% (c) (millions of tons/year)
Aluminum cans	50.7	760	-4.08	3.10	4.88
PET bottles	34.5	1292	-0.71	0.92	0.93
HDPE bottles	9.4	470	-0.43	0.2	0.23
Glass bottles	24.2	5280	-0.09	0.5	0.52
Newspapers	n/a	4530	-0.96	4.3	8.66
Total Beverage Containers	**118.8**	**7,802**		**4.7**	**6.56**
Newspapers		**4,530**		**4.3**	**8.66**

(a) Energy savings in millions of British thermal units (MBtu) per ton recycled. Derived from: "Mandated Recycling Rates: Impacts on Energy Consumption and Municipal Solid Waste Volume." L.L. Gaines and F. Stodolsky, Argonne National Laboratory, ANL/ESD-25, December 1993. Some adjustments have been made for process losses.

(b) Aluminum data is for 2001, derived from the Aluminum Association and the U.S. Department of Commerce. PET, HDPE and Glass data are for 1999 from Table ES-1, "Understanding Beverage Container Recovery: A Value Chain Assessment" Businesses and Environmentalists Allied for Recycling, A Project of Global Green USA, March 2002. Discarded newspaper data is from "Municipal Solid Waste in the United States: 1999 Facts and Figures." U.S. Environmental Protection Agency, 2000.

(c) Greenhouse gas emission reductions in millions of tons of carbon equivalent (MTCE) per ton recycled. Derived from: "Greenhouse Gas Emissions from Management of Selected Materials in Municipal Solid Waste." U.S. EPA 530-R-98-013 September 1998.

STATEMENT OF SCOTT CASSEL, PRODUCT STEWARDSHIP INSTITUTE

Thank you for the opportunity to testify on Senate Bill 2220. My name is Scott Cassel and I am the Founder and Director of the Product Stewardship Institute (PSI) at the University of Massachusetts. I also served 7 years as the Director of Waste Policy for the Massachusetts Executive Office of Environmental Affairs where I was directly responsible for the State's beverage return law.

The bottle redemption law in Massachusetts has been a big success. It has been instrumental in reducing litter, jump starting recycling, and bringing billions of containers worth of high-quality recycled materials to manufacturers for the production of goods. The Massachusetts bottle redemption law works because it provides a financial incentive to individuals to collect containers, especially in places where recycling programs do not currently exist. Even States around the country with excel-

lent recycling programs do not often fully collect from apartments, public spaces (e.g., parks and stadiums), and businesses. These containers currently go straight into our nation's landfills and combustion facilities.

The most striking statistic is that, in 2000, non-deposit containers in Massachusetts were recycled at a rate of between 20 and 33 percent, while the return rate for deposit containers was between 72 and 80 percent. Over time, the return rate has dropped owing to the decreased value of a nickel as a result of inflation. The Senate bill's intention to maintain the value of the deposit over time is a positive aspect of the bill. I would expect that an 80 percent return rate would be easily achievable with a ten-cent deposit in today's dollars, although States without bottle redemption laws today may find it difficult to reach 80 percent recycling in 2 years.

Massachusetts is the only State in the country where 100 percent of the unredeemed deposits go to the State. I think it is essential for government to own the unredeemed containers, although the program will be more credible if the unredeemed funds are used only for problems associated with beverage containers, and not used to solve other environmental problems. In addition, providing financial incentives to manufacturers to reach performance goals, as attempted in the Senate bill, is another provision worthy of consideration.

Of all the solid waste issues on which I worked with the State, the beverage return law represented its own unique challenges. One of the main challenges I had to confront was fraud, particularly related to containers sold in non-bottle bill States but redeemed in Massachusetts. I have enclosed a memo entitled "Fraud and the Bottle Bill System: Sunmiary, November 2, 1999," to illustrate the types of fraud inherent in a State bottle bill. A national beverage return law will alleviate many of these cases of fraud, although the committee should ensure that similar issues would not occur in border States in provinces or areas without a bottle bill.

PSI was created in December 2000 as a national organization to assist State and local government agencies to negotiate cooperative agreements with industry and to develop other initiatives that reduce the health and environmental impacts from consumer products. PSI is currently coordinating over 20 States and several dozen local agencies on a national electronics product stewardship initiative. We have developed a take-back program with Benjamin Moore, the paint company, and the Massachusetts Department of Environmental Protection, and have begun research and outreach for a potential national dialog on paint products.

PSI was created to assist State and local agencies to manage the increasing number and complexity of consumer products that become waste. Local governments are the last defense against waste and have no choice but to manage these wastes if the proper systems are not in place. Managing these products costs a great deal of money, funds which government does not have, unless they want to raise taxes. PSI developed a set of Principles of Product Stewardship by consensus with our State and local members. One of those principles is that the costs to manage consumer products should be folded into the purchase price of new products. These agencies believe that consumers should be paying for these services rather than having all taxpayers pay through government-funded programs. The Senate bill is founded on these same product stewardship principles.

I do not know if a national bottle bill is the best solution. State bottle bills, from my experience, certainly have been a cost-effective and efficient way to recycle beverage containers, and studies conducted for Massachusetts' environmental agencies showed that developing a. recycling infrastructure and consumer education campaign for containers (especially those consumed outside the home), was equally as expensive. It is also likely that such an infrastructure and campaign would take longer to reach the same performance goals as legislation. Therefore, I see no reason why a national bill would not be successful. The key to greater environmental protection, however, is for manufacturers to step to the plate and work with government officials, recyclers, market development specialists, and other key players to reduce the life-cycle health and environmental impacts caused by their products. Product stewardship and corporate responsibility are here to stay, and all interests must find a way to make it work for beverage containers.

STATEMENT OF JEFFREY BECKER, PRESIDENT, BEER INSTITUTE

Mr. Chairman and Members of the Committee on Environment and Public Works, I appreciate the opportunity to address recycling issues and the concept of producer responsibility for recycling beverage containers. Members of the Beer Institute include the largest and smallest domestic brewers as well as several major international brewers and industry suppliers. In the United States, our products are pro-

duced by over 1800 brewers, sold in over 700,000 licensed retail establishments, and enjoyed responsibly by over 90 million adult consumers over the age of 21.

Our industry has a long history of advocating and implementing sound environmental and energy conservation practices. Individual brewers along with groups such as Master Brewers Association of the Americas, the United States Brewers Association, and the Beer Institute have a tradition of environmental stewardship that can be documented from the late 19th Century.

As a mature domestic industry, brewers have been leaders in many developments in manufacturing consumer products. Many of those developments are practical from a business and economic standpoint as well as an energy conservation and environmental protection perspective

Several of our major brewers have reduced fossil fuel use by recycling alcohol and methane from brewing byproducts and using it as fuel or for power generation in breweries. These "bioenergy recovery systems" conserve hundreds of millions of cubic feet of natural gas each year. Carbon dioxide is also recovered and used in the brewing process.

Packaging is an essential part of the brewing industry. Since the 1950's a rapidly growing proportion of beer has been sold in cans and bottles. Beer is a staple in the Federal Government's market basket of consumer goods, and safe, convenient, and economical packaging is essential.

Brewers have always encouraged responsible behavior by our customers. That includes proper disposal of packaging materials and containers, preferably in recycling bins. The brewing industry created and sustained the Pitch-In Campaign, a highly successful anti-litter campaign. Creative materials and a strong network of supportive industry members were major factors in that success. The materials from the 1960's are still in use throughout the United States, and the U.S. Brewers Association allowed public and private reproduction of additional campaign materials at no charge. The Pitch-In logo appears on millions of trash receptacles today. Individual brewers have also sponsored numerous cleanup campaigns in cities throughout the Nation. Brewers have been reducing waste and reusing materials for decades before recycling became part of our national lexicon.

Anheuser-Busch and Miller Brewing Company both recycle between 75 and 90 percent of corrugated cardboard used in shipping and packaging.

Most grain used in the brewing process is recycled in variety of other commercial products for human or animal consumption, further reducing the waste stream and maximizing the value of our agricultural resources.

Our members have also developed several major advances in packaging technology. These innovations have substantially reduced the weight of cans and bottles while maintaining package integrity.

Since the late 1970's, all beer in cans is packaged in aluminum. Prior can designs combined aluminum and steel, making the recycling process more difficult because the steel and aluminum had to be separated. The lighter weight of aluminum cans also reduces energy use in transportation.

Two of America's largest brewers, Anheuser-Busch and Coors have built highly successful aluminum recycling businesses as a natural extension of their can manufacturing activity. Anheuser-Busch has recycled more than 10 billion pounds of aluminum. The Coors operation has been spun off into a separate business operation. Both companies recycle more aluminum than they use in their packaging. Enormous energy and environmental benefits are achieved through these efforts, and they constitute a substantial beverage industry infrastructure for ongoing and future recycling activities. A recycled aluminum can requires only 5 percent of the energy used to produce a virgin aluminum can. Cans utilized by brewers contain as much as 50 percent recycled aluminum.

In the area of glass packaging, significant progress has been made with respect to use of recycled glass. Over the last decade, Miller Brewing Company employed new technology to reduce the weight of its bottles by over 20 percent. At the same time, Miller has increased the level of recycled glass in its bottles to 30 percent of the total, a savings of more than 8,400 tons of glass each month. The three largest domestic brewers, Anheuser-Busch, Miller, and Coors have all made substantial progress in increasing the use of recycled glass.

The success of many curbside recycling initiatives is based on the higher value of material from beverage containers relative to other materials. Removing beverage containers from thousands of community programs will hamper further development of an infrastructure for more comprehensive recycling initiatives. This is not a new argument, and it is a major reason that most States have adopted policies based on the need to conserve resources in an economically efficient and practical manner.

Many major metropolitan areas are just beginning to see some success in their recycling programs after years of trial and error as outlined in an April, 2002, EPA

commissioned report entitled Multifamily Recycling, A National Study. Sophisticated sorting systems are also being developed that are capable of removing beverage containers from other waste streams. Absent the revenue from beverage containers, these efforts and future enhancements would be seriously set back or even doomed to failure.

If any type of new national system were superimposed on existing recycling activities, a great deal of dislocation and confusion would result. Existing businesses, including the Anheuser-Busch Recycling Corporation, have established systems to efficiently prepare and ship aluminum cans from local gatherers to major prime aluminum producers. The cans are then remelted into ingots, which are then rolled into fresh beverage can stock.

With a federally imposed, new system of recycling, transportation systems for recycled products would change dramatically. Redemption centers, expensive industrial equipment, and other facilities built over the last two decades may not be as efficient with thousands of new drop off points for beverage containers. Thousands of retail outlets would have to deal with the challenges of allocating space and maintaining sanitation for container redemption. All of the changes necessitated by a new national system would impose substantial new costs with no clear benefits.

Effective recycling requires broad public participation, and a national container deposit cannot guarantee the changes in attitudes and habits that are required to increase recycling efforts. Communities that have achieved the highest levels of participation in curbside recycling make sustained commitments to address

A review of recycling rates in 2001 indicates that rates for aluminum cans in States with mandatory deposit requirements are very close to those achieved in States in which municipalities have adopted voluntary recycling efforts. The mandatory States, with a population of 81 million, recycled a total of 440 million pounds of aluminum cans or 5.43 cans per person. The non-mandatory States with a total population of 191 million, recycled 5.50 cans per person. The committee should review comparisons in this area very carefully because they appear to underscore the limited impact of a Federal deposit law on consumer habits.

Members of the Beer Institute believe that a strong foundation exists on which a broader recycling infrastructure can be built. Two key areas need further attention to improve recycling rates: education and system convenience. Mandatory container deposits do not further progress in either area. Consumers have become accustomed to convenient, single-serve beverages. In many other areas of public policy, we have seen that sustained educational efforts will encourage most Americans to change their habits in the interest of achieving broader public benefits. We must continue to reinforce the message that improper disposal of beverage containers has ramifications for raw material usage, landfill limitations, and energy costs. All of these issues have resonance with a broad cross-section of our society.

Beyond education, we must continue to make recycling more convenient to consumers. Existing drop-off or buy-back centers are common all across the country for those who wish to dispose of their recyclables in the course of other errands. Over 10,000 locations currently exist in the United States, primarily for metals. Over 900 million pounds of aluminum cans were recycled through this system in 2001. Another proven component of the existing recycling infrastructure is the Municipal Curbside Program, serving more than 60 percent of the nation's family residences in the United States. This program generated more than 150 million pounds of aluminum cans in 2001. An estimated 50 million Americans recycle on a regular basis.

As a matter of general Federal policy, S. 2220 would be a major extension of EPA authority over the organization and logistics of recycling activities, an area that has developed in the private sector without a Federal mandate or fee.

The proposed national deposit would constitute one more tax on beer, which is already among the most highly taxed products in the United States. Our members already pay the same taxes as other U.S. businesses. In addition, industry members pay beer excise taxes in all 50 States, local sales taxes that do not apply to many other food and beverage products, and container deposits in those States which have enacted them. 44 percent of the cost of a beer is attributed to Federal, State, and local taxes according to a comprehensive analysis of the brewing industry's tax burden. A container deposit would add one more level of taxation.

Over 3000 brands of beer have been registered with Federal and State officials for sale in the United States. Requiring a nation-wide program for each brand would cause a tremendous burden on industry members and the EPA.

S. 2220 would also change longstanding labeling requirements for alcohol beverages, an area that is already governed by Federal law and the laws of the 50 States. Under the 21st Amendment, States have broader authority to regulate alcohol beverages.

In summary, members of the Beer Institute will sustain their commitment to sound environmental stewardship in the years ahead. We have done so because it is part of our responsibility as corporate citizens. We have also created economically viable business units that have dramatically expanded the potential for recycling of the containers our industry produces as well as a variety of other materials in the waste stream.

We respectfully urge the committee to conduct more in-depth reviews before formally considering any new mandatory national deposits or similar fees. Changes in public attitudes and practices take time in a free society, but we have made enormous progress in fighting litter and encouraging recycling.

We would be happy to provide the committee with supplemental information on our industry's activities, and we will continue to make our best efforts to support stronger voluntary recycling program.