



**INNOVATIVE WASTE REDUCTION AND RECYCLING GRANT 06-04
FINAL REPORT**

**BUILDING A COST EFFECTIVE COMMERCIAL AND INSTITUTIONAL
ELECTRONICS RECOVERY PROGRAM**

August 31, 2008



Prepared for: **Florida Department of Environmental Protection**
Bureau of Solid and Hazardous Waste
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Prepared by: **Alachua County**
Waste Alternatives Division and
Hazardous Waste Program
P.O. Box 1188
Gainesville, FL 32602

And

Kessler Consulting, Inc.
14620 N. Nebraska Ave., Bldg D.
Tampa, FL 33613



**Alachua County IG-06-04
Final Report
TABLE OF CONTENTS**

Section 1.0 – Introduction	Pages 3-6
Section 2.0 – Project Implementation	Pages 7-12
Section 3.0 – Project Results and Deliverables	Pages 13-16

Appendices

Appendix A	Electronics Generator Working Group Documents
Appendix B	Electronics End-user Working Group Documents
Appendix C	Permanent Drop-off Facility Promotion Documents
Appendix D	Processing Fee Structure Rate Review Document
Appendix E	Pre-processing Program/Materials Marketing Documents
Appendix F	Donation Center/Thrift Store Partnership Program Documents and Education Kit
Appendix G	Best Management Practices Guide
Appendix H	Employee Education Materials
Appendix I	Electronics Manager Marketing Kit

Section 1.0 Introduction

1 INTRODUCTION

1.1 Genesis of Project

In April 1999, the Alachua County (County) Environmental Protection Department launched its very first electronics collection recovery event. Since that time the County has dedicated a permanent electronics scrap (e-scrap) collection center at the Leveda Brown Environmental Park, partnered with Best Buy for a successful collection recovery event, and awarded a processing contract to Creative Recycling Services for processing its e-scrap as a means to ensure domestic recycling of material.

Though the County dedicated significant time and resources to recovering e-scrap, there was limited outreach to the commercial/institutional (C/I) sector. However, this sector is one of the largest e-scrap producers and the absence of a comprehensive education program was an opportunity the County could explore.

Under the state's Innovative Waste Reduction and Recycling Grant Program, Alachua County submitted and was awarded a *Grant Contract 06-04* in 2005 to develop a comprehensive outreach and education program for commercial businesses. The innovative nature and sustainability aspects of the grant included the development of a pre-processing/materials marketing program to help control the costs associated with e-scrap recycling. Both of these parts have played key roles in calculating and rating the effectiveness of this project.

The development of a cost effective, sustainable local e-scrap management program geared towards the C/I sector was the main intent of this project.

1.2 Project Goals & Objectives

The overall goal of this project was to develop and document the creation of a cost competitive and sustainable e-scrap program aimed at providing disposal services to the C/I sector, traditionally underserved by County government systems. The project's goals and objectives were divided into two areas – County specific programs and issues and the development of marketing and education materials for distribution statewide to county government systems and other C/I customers.

The project objectives specific to the County were:

- The development of two working groups to develop and implement the local C/I program.
- Coordinating and developing outreach and education to direct C/I customers to the existing facility along with alternatives.

- Evaluating and adjusting the rate structure to align revenue generation with the County's fiscal year.
- The implementation of a pre-processing/materials marketing program to help demanufacture some items on-site to reduce disposal costs and develop new revenue sources.
- The development, printing and distribution of promotional materials to increase the C/I sectors use of the County's facility as a cost effective means for e-scrap disposal.

The project objectives with broader statewide implementation:

- The development of an Education Kit for the Donation Centers/Thrift Stores (DC/TSS), Hotel/Motel, and Television Computer Repair centers.
- A Best Management Practices (BMP) guide for all C/I customers.
- The development of message specific education materials for business owners and employees.
- The creation of a Marketing Kit aimed to help County Solid Waste, Recycling and Pollution Prevention employees increase the C/I e-scrap diversion in their communities.

In order to achieve these objectives, the County worked to 1) develop and expand partnerships with local agencies to assist in making the program successful, and 2) draft and execute a new contract with Creative Recycling Systems, Inc. to update and enhance their contract for e-scrap disposal. Finally the County used existing research to develop a series of options for the C/I market to explore so that the most economically viable decision could be made.

1.3 Innovative Features

Electronics technology continues to grow exponentially and as it changes, C/I customers are faced with large quantities of e-scrap material that they should not or cannot place in the trash. Florida has not adopted an official position banning e-scrap from disposal and as such, many places are still putting these items in landfills. The County recognizes that the increasing amount of e-scrap represents a burden to local businesses, as well as the environment. As a public entity, the County recognized that changes were necessary to operations in order to develop a viable, local program for C/I e-scrap.

In addition, the items included in the e-scrap category represent a large, varied set of objects, which contain toxic materials. The improper disposal of these items could represent a significant contamination issue that will be costly to mitigate. There has been an increase in worldwide media attention on the problems associated with improper e-scrap disposal. The County, as a proactive agency, recognized that there was value in the components from e-scrap and used that to help write a contract that ensured proper, domestic disposal of all waste created as a result of their e-scrap collection.

The project executed and initiated the following innovative activities to address the challenges faced by the County, C/I sector, other local governments and Donation Centers/Thrift Stores.

1. *Creation and Implementation of a Pre-processing/Materials marketing program.* The contract that the County has with Creative Recycling Systems (CRS) is designed to provide demanufacturing and recycling services for each piece of equipment that gets collected and processed. Currently the contract provides pricing, per unit, based on the type of material CRS must demanufacture and recycle. Prior to renegotiation, the County was paying upwards of \$14.65/unit (including disposal, labor, transportation, etc.). The most innovative part of this project focused on the development of a pre-processing/materials marketing program. Under this program the County was able to demanufacture e-scrap to valuable component materials which CRS paid for as the materials were generated. While this program was initially going to be executed by a temporary laborer, the County was able to use community service workers, at no cost, to manage the program and generate a revenue stream that has increased annually. CRS included this revenue as an offset to the County's monthly bill, reducing the overall disposal costs associated with the e-scrap program. Another aspect of this program allowed The Dignity Project, a local non-profit that provided computers to the community, to receive revenue for monitors that were pre-screened and found to be functional. This project lasted from February 2007-October 2007 and diverted 242 monitors to usable purposes and generated \$726 for The Dignity Project.

2. *Promotion of the County's e-scrap disposal facility/services.* Based on the survey results that the County performed after the development of several working groups, 80.3 percent of the respondents had no idea that the County provided e-scrap recycling services to the C/I sector or knew about the County's Hazardous Waste Collection Center (HWCC). The Project team developed technical language and a new education campaign, "The Electronics Retirement Center" (ERC) as a means of rebranding e-scrap outreach and promoting the various services offered to the C/I sector. As a continuation of the branding around the program a website was developed, <http://www.alachuacounty.us/e-scrap/>, for C/I sector to obtain relevant e-scrap management information. Included in the development of promotional items were two brochures: one aimed at business owners and the other aimed at employees. The business owner brochure explained why e-scrap should be managed properly while the employee brochure focused on management of e-scrap both at work and at home. The final piece of promotional material developed was a "Frequently Asked Questions" (FAQ) sheet providing general e-scrap management information. The FAQ was placed on the website and into the BMP guide.

3. *A Best Management Practices guide for all C/I customers.* Utilizing the ERC theme a BMP guide was developed and produced to help businesses manage their e-scrap. The BMP provides the following information for the C/I sector including:
 - Why proper e-scrap management is important.
 - The specifics for Alachua County's program.
 - Designing and implementing an e-scrap program.
 - Environmentally preferable purchasing.
 - Case studies illustrating e-scrap management.
 - Additional resource materials.

The topics covered by the BMP allow businesses to learn how to properly manage their e-scrap disposal needs in the most environmentally and economically beneficial way.

4. *Education Kit for Donation Centers/Thrift Stores:* DC/TSSs were one of the groups identified as an alternative disposal service provider for e-scrap. There are many issues that DC/TSSs face when accepting e-scrap as a donation. In response, the County developed an education kit to provide information specifically to this sector to help them manage e-scrap donations they receive. Additionally, the kit provides options they can offer to their customers to reduce the burden each organization faces with e-scrap disposal as well as providing additional information to their customers.
5. *Creation of the E-manager Marketing Kit:* The E-manager marketing kit was developed to help other local governments by providing education on how to develop a strategy and plan to better manage their e-scrap. Included in the marketing kit are several model case studies offering relevant e-scrap strategies. Information provided will connect E-managers to vendors that provide service throughout the state so that they can competitively procure an e-scrap disposal contract. Finally, in order to help educate the entire community, the kit provides information on national e-scrap recycling programs that all customers, C/I or other, can participate in. The intent of this marketing kit is to help increase the efficiency of existing programs, provide the impetus for new programs and ensure that programs are providing all the necessary services.

1.4 Information Dissemination

The items developed by this project are going to be made available for dissemination throughout the entire state. Each of the following items was produced in Adobe® Acrobat .pdf format so that any interested entity can download it:

- Business Owner Brochure
- Employee Brochure
- Best Management Practices Guide
- Donation Center/Thrift Store Education Kit
- E-manager Marketing Kit

Additionally, the County developed a website dedicated to the e-scrap ERC campaign containing these items and other technical information. The County has also presented at the SWANA Special Waste Conference, February 2007, NAHMMA Florida Chapter, May 2008, and the Recycle Florida Today Annual Conference, June 2007. An article was also published in February 2008 in the Gainesville Sun discussing the County's E-scrap Event that was coordinated to help educate the local C/I audience. During the 2008 Recycle Florida Today Annual Conference and 2008 NAHMMA Florida Chapter Workshop, the County had all of the materials, with the exception of the E-manager Marketing Kit at their booth, available for distribution to attendees.

**Section 2.0
Project Implementation**

2.0 Project Implementation

2.1 Initial Project Activities & Timeline

The project included a list of specific tasks aimed at achieving the project objectives. The following lists the tasks as well as an initial timeline for the project:

1. Convene an Electronics Generator Working Group & Meetings
2. Convene an Electronics End-user Working Group & Meetings
3. Promote the County's Electronics Permanent Drop-off Facility to the C/I Sector
4. Processing Fee Structure Rate Review
5. Pre-processing Program: Temporary Staff
6. Materials Marketing Program
7. Statewide Donation Center/Thrift Store Partnership Program and Education Kit
8. C/I BMP Kit(s)
9. Message Specific Education Materials for Businesses' Employees
10. Statewide Electronics Manager Marketing Kit
11. Quarterly and Final Report Preparation
12. Project Management

Project Schedule:

Task	1Q	2Q	3Q	4Q	5Q	6Q	7Q	8Q	9Q	10Q	11Q
Convene an Electronics Generator Working Group & Meetings			→								
Convene an Electronics End-user Working Group & Meetings			→								
Promote the County's Electronics Permanent Drop-off Facility to the C/I Sector										→	
Processing Fee Structure Rate Review			→								
Pre-processing Program: Temporary Staff			→				→				
Materials Marketing Program										→	
Statewide Donation Center / Thrift Store Partnership Program and Education Kit									→		
C/I BMP Kit(s)									→		
Message Specific Education Materials for Businesses' Employees									→		
Statewide Electronics Manager Marketing Kit										→	
Quarterly and Final Report Preparation											→
Project Management											→

The following paragraphs describe the work activities and project deliverables in greater detail in the innovative grant scope of services between the County and the Florida Department of Environmental Protection (FDEP). The deliverables that relate to each are attached under separate cover to this report.

Task 1: Convene an Electronics Generator Working Group & Meetings

In order to determine how best to increase recovery of electronics from larger C/I generators, County staff decided to convene an electronics generator working group meeting. The intent was to ascertain current electronics management practices, identify barriers, and better promote available options. The County conducted a kickoff meeting for generators on 12/1/2005 and a follow-up meeting on 3/30/2006. A survey was developed and executed which was used throughout this project to help provide solutions for the target audience.

Deliverables:

- Meeting Agenda
- Meeting Notes
- Attendee List
- Large Generator Survey Results

The deliverables described above are attached to this report in Appendix A.

Task 2-Convene an Electronics End-user Working Group & Meetings

This working group consisted of participants that recover, reuse, receive, or process electronic scrap in some manner. Since these participants play a role, their input and inclusion in the development of an economically feasible local infrastructure was necessary. The County conducted a kick-off meeting for end-users on 12/2/2005 and a follow-up meeting on 3/30/2006. One of the outcomes of this meeting was identifying how much users knew about the County's e-scrap collection services for the C/I sector. A survey was developed and executed which was used throughout the project to help strengthen the intent of the project and develop strong solutions for helping the C/I sector properly manage their e-scrap.

Deliverables:

- Meeting Agenda
- Meeting Notes
- Attendee List
- Survey Letter Report
- Phase I Survey Questions
- Phase II Survey Questions
- Survey results

The deliverables described above are attached in Appendix B.

Task 3-Promote the County's Electronics Permanent Drop-off Facility to the C/I Sector

Based on the survey results, the County found that more than 80 percent of the C/I sector had no knowledge of the HWCC. Alachua County currently offers hazardous waste service to

Conditionally Exempt Small Quantity Hazardous Generators and e-scrap is one of the materials that the County accepts. The County made the decision to cap the amount of material they would accept from each C/I customer to 50 pieces or less. C/I customers with a quantity of material greater than 50 units get directed to one of the state-approved e-scrap companies. A brochure was developed to promote the center as well as a press release. In addition, the County sponsored a 2-day collection and workshop to promote the use of the facility. This brochure and e-scrap event information was direct mailed to over 10,000 businesses within the County. One of the main promotional items developed was a revamped ERC website as part of the County's overall web presence. This site included all of the information developed and all of the items that were produced are available for download so that all C/I customers and other local jurisdictions have access to the information. The site is located at:

www.alachaucounty.us/e-scrap

Deliverables:

- C/I Owner Brochure
- Residential Brochure
- E-scrap Press Release
- E-scrap Event Plan
- E-scrap Event Results Letter Report
- E-scrap Event Marketing Piece
- E-scrap Event Handout
- E-scrap Event Attendance Sheets
- Website Review and Recommendations Letter Report
- E-scrap Website Screen Shots
- E-scrap Pocket Guide

The deliverables described above are attached in Appendix C.

Task 4-Processing Fee Structure Rate Review

In order to ensure that they were paying a competitive price, the contract that the County had with CRS was reviewed. The review allowed the County to edit and approve a new contract that was more favorable, and included the necessary language for the planned cost savings measures, specifically the pre-processing and materials marketing programs. All of the changes to the contract were approved by CRS and the contract was signed by both parties and became effective October 1, 2006 for a two year period with one, two year extension.

Deliverable:

- Revised and executed contract with CRS

The deliverable described above is attached in Appendix D.

Task 5-Pre-Processing/Materials Marketing Program

One of the new items in the updated CRS contract was a section that allowed the County to get revenue for pre-processed materials and components. The County initially planned to hire temporary labor to perform this function however they were able to utilize workers from the County's Community Service Work Program (CSWP). The labor provided by the CSWP is at

no cost to the County. Without a labor cost, the materials generated at the HWCC through pre-processing proved to generate higher revenue, and a greater contract offset cost than the County anticipated. Another aspect of the project included CRS paying The Dignity Project for good monitors that they received through their program. However, due to the economics of the secondary market, this was discontinued prior to the project's completion.

Deliverables:

- Pre-processing/Materials marketing program description
- Materials tracking spreadsheet for the County to calculate savings and revenue

The deliverables described above are attached in Appendix E.

Task 6: Statewide Donation Center/Thrift Store Partnership Program and Education Kit

Utilizing the data from the FDEP 2003 Report *State of Electronics in Florida: Donation Center Survey* an education kit was developed that helped this audience develop a plan to better manage any e-scrap received, either voluntarily or that was left at one of their centers. Using the ERC theme, this Kit will be distributed to all of the DC/TS's in Alachua County and provided as an electronic download for any other interested organizations.

Deliverables:

- Donation Center/Thrift Store Education Kit
- In-store Marketing signage
- Donation Center/Thrift Store Letter Report

The deliverables described above are attached in Appendix F.

Task 7: C/I Best Management Practices Guide

The County worked to create a comprehensive BMP Guide which was distributed to businesses throughout the County and added to the website for download by interested companies. Resources contained within the BMP included a list of related internet websites, list of FDEP acknowledged demanufacturers, a sample company policy for proper e-scrap management, a sample chain of command memo for donating used, working electronics, the County's Hazardous Waste Collection Center brochure and the business employee brochure, and Frequently Asked Questions. All of these resources were items identified by the Working Group as important to the C/I audience.

Deliverable:

- Best Management Practices Guide

The deliverable described above is attached in Appendix G.

Task 8: Message Specific Education Materials for Businesses' Employees

The County created a brochure aimed at employees that was designed with the ERC theme to help manage e-scrap produced at work as well as in individual homes. In addition, a Frequently Asked Questions list was developed to answer the basic questions regarding proper e-scrap

management. Both of these items were integrated into the County e-scrap website and included in the BMP guide.

Deliverables:

- Employee e-scrap Brochure
- Frequently Asked Questions on e-scrap

The deliverables described above are attached in Appendix H.

Task 9: Statewide Electronics Manager Marketing Kit

The E-manager Marketing Kit was designed to help government organizations charged with solid waste management responsibility to effectively manage e-scrap disposal needs. Earlier in the project, a survey was performed to assess the current e-scrap practices that Counties were utilizing. The results of the survey were used to develop the content for the E-manager Marketing Kit. Based on identified needs, the Kit was created to serve all levels of e-scrap collection including those who don't offer the service to C/I or residential customers as well as providing relevant information to those entities with comprehensive programs. The Kit will be sent to all county recycling coordinators and household hazardous waste managers within the State of Florida.

Deliverables:

- E-manager Marketing Kit Letter Report
- E-manager Marketing Kit
- E-manager Survey Results

The deliverables described above are attached in Appendix I.

Task 10: Quarterly and Final Report Preparation

All quarterly reports were delivered to the FDEP according to the approved schedule for the grant.

Task 11: Project Management

All of the deliverables that were required by this project were created and delivered to the FDEP according to the schedule that was set forth in the contract. Any and all extensions were handled in accordance to policy and the County completed the project according to all of the deadlines approved by the FDEP.

2.2 Problems Encountered

The project team did encounter some problems with the project activities and they included the following:

- Communication problems resulted in the initial Working Group Meeting being cancelled and rescheduled to March 30, 2006.

- Lower than anticipated survey returns from a selected set of small and medium sized businesses resulted in a revised approach and a second phase mass mailing to 9,105 small businesses.
- The County's contractor temporarily ceased working on the project due to a contractual error made by the County.
- There was ongoing dialogue between County staff and FDEP regarding the reporting periods in the contract and those indicated in the letter sent by FDEP.
- The County reallocated the line item funding for the demanufacturing task since free labor became available through the County's CSWP.
- CRS ceased paying The Dignity Project for monitors due to changes in the market conditions for these materials.

2.3 Modifications to Project Activities

There were several modifications that were made to activities within the project. These modifications or actions included:

- In order to properly survey the C/I sector within the County, an expanded marketing survey needed to be developed and distributed. The original survey did not provide enough of a response to provide adequate data to work with.
- Since the County was able to utilize free labor through the CSWP, they did not spend the money allocated in the grant for hiring temporary labor to handle this task.
- The addition of a two-day e-scrap collection and education event was developed by the County to reach out to the C/I customers and reinforce the marketing of the County's facility.

Section 3.0 Project Results and Deliverables

3 Project Results and Deliverables

3.1 Goals and Objectives

The success of this project was based around the development of a comprehensive e-scrap recycling program designed to provide the necessary education and services to the C/I sector. In addition, each piece of promotional material and tool developed as a result of this project was created to be transferable to any local jurisdiction to help guide the development or expansion of current e-scrap recycling practices for the C/I sector.

The County successfully achieved the goals set out within the framework of the project. Each step of the process, which began with the working groups, help to build momentum and guided development of all the collateral and promotional material produced under the “Electronics Retirement Center” (ERC) theme. Alachua County’s central purpose in developing the promotional materials was aimed to raise awareness of the HWCC facility where local C/I customers could properly dispose of their e-scrap. This was supported by all of the materials developed by the County however the theme can be adopted anywhere that wants to achieve the same type of program awareness.

The County also worked with CRS, their current e-scrap vendor, to review and amend their contract to help promote demanufacturing and pre-processing of material before it was sent to CRS for disposal. The use of pre-processing and demanufacturing reduced the amount of material the County sent to CRS and also generated materials that had resale value to CRS or other e-scrap markets. Overall, these innovative changes have produced significant positive impact on the County’s e-scrap processing contract.

The final outcome that exceeded the County’s expectations was the successful adoption of the ERC theme that all of the promotional materials were developed under. This theme was embraced and proved to be versatile for use on all of the documents that were developed as a part of the project. Each of the materials below, provides a “short cut” for their intended audience and allows them to cost effectively implement an e-scrap program. The collateral pieces developed include:

- Donation Center/Thrift Store Education Kit
- Best Management Practices Guide for Businesses
- Message specific materials for owners and employees
- E-Manager Marketing Kit for Counties/Cities

3.2 Innovative Aspects of the Project

Managing C/I e-scrap is one of the newer issues that local governments face as a disposal issue since this sector is one of the larger producers of e-scrap materials. Based on the research conducted throughout the course of the project, the County was able to plan, implement, and effectively execute a pre-processing/demanufacturing program as an integrated part of their operation to reduce program management costs. Based on data from the FDEP and CRS, Alachua County was one of the first entities to fully explore and integrate the use of material pre-processing to better manage the financial viability of their e-scrap program.

The surveys that were conducted as part of the working group development helped to guide all of the marketing and education materials developed under this project. Using these results as a baseline, further research was performed to answer specific questions that entities had regarding e-scrap and properly managing this new waste stream. The result of the FDEP and project research was a cohesive, creative education campaign that provided the information that C/I customers are looking for to properly manage e-scrap.

3.3 Expanding the Recovery/Recycling of E-scrap

Including local businesses in the creation of the C/I e-scrap program provided clear and relevant information that guided in the creation and expansion of a sustainable local program for the County. The restructuring of rates and the disposal contract were integral in helping to achieve the cost savings necessary to maintain the growth and financial viability of the program.

Since most e-scrap demanufacturing and recycling contracts are a cost center for the entity executing them, there is a financial limit to the amount of material which can be handled in a given budget year. The County has shown that a pre-processing/demanufacturing program utilizing “free labor,” in this case the CSWP, has the ability to lower the cost of processing and increase the amount of material diversion possible within an e-scrap program. The expansion of this type of program throughout Florida could help to increase the amount of e-scrap collected and recycled due to the positive financial benefits of integrating a pre-processing/demanufacturing program into current e-scrap recycling programs.

E-scrap is one of the fastest growing segments of the waste stream and more programs will develop as policies are developed to guide in the proper management of this material. Based on those policy decisions, the materials and plan developed by this project will help any jurisdiction manage the material in a cost effective and environmentally sensitive manner and keep pace with the changes technology brings.

3.4 Transferability

The deliverables and information associated with this project are already in electronic format and uploaded to the County’s website. In addition, the deliverables can be uploaded to the FDEP’s website, both in the Waste Reduction section and/or the Household Hazardous Waste section since at the local level, either of those programs may handle e-scrap.

Additionally, County staff presented this information to County recycling coordinators, household hazardous waste coordinators and solid waste professionals in both 2007 and 2008 during industry annual conferences and networking/education opportunities.

3.5 Project Cost Effectiveness

3.5.1 Project Expenditures

- Total Grant Award: \$200,000
- In-Kind Contributions: \$95,000
- Actual Grant Expenditures – \$153,162

3.5.2 Cost Benefit Analysis

The table below shows a summary of the savings that the County achieved throughout this grant. These costs are associated with all materials generated from October 2005-June 2008.

Total E-scrap Tonnage	495.21
Total Cost of E-scrap Management	\$112,872
Pre-processing/Materials Marketing Program	
Tonnage Processed/Marketed	36.94
Revenue Generated	\$16,579
Avoided Disposal Costs (@ \$45.50/ton)	\$22,532
Total Benefit	\$39,111
Net Financial Results	\$73,761

Utilizing pre-processing and materials marketing allowed the County to convert 7.5 percent of their e-scrap stream into commodities demanded by end markets, resulting in revenue of \$16,579. In addition, because the County was actively recycling and not landfilling their e-scrap, an added savings of \$22,532 in avoided tip fee costs was realized since materials were not landfilled. Combining these savings, the County realized a financial benefit of \$39,111 which equates to a 35 percent reduction in the costs associated with the e-scrap program.

3.5.3 Impact on End Market

The County's pre-processing/demanufacturing program along with the renegotiation of their contract with CRS resulted in the ability to provide a valuable commodity to the end markets. The items that the County separated during the pre-processing program were things that the industry demanded. This helped to provide material that required minimal processing and decreased the time it took to move the material into the secondary market for reuse.