

Chelsea Center For Recycling and Economic Development

Newsletter

Spring 98

Manufacturer Profile 1:

Walden Paddlers Wins National Award for Outstanding Recycling Innovation

Walden Paddlers, Inc., based in Concord, MA, is the latest recipient of the National Recycling Coalition's award for Outstanding Recycling Innovation, and Massachusetts' first recipient of this honor. Walden Paddlers makes the world's only line of kayaks from recycled plastic.

Walden Paddlers considers themselves a "virtual" company, comprised of a number of independent companies, each of which is a leader in their respective field. *Hardigg Industries* is a rotational molder located in South Deerfield, and is internationally recognized for their custom molded products. *Universal Plastics*, in Chicopee, has developed thermoforming technology to produce small and large items, from high tech consumer packaging to sea kayaks. *TMC*, of Manville, Rhode Island, developed and produces reusable shipping/storage bags for the boats. *Walden Paddlers, Inc.*, handles design, marketing, and distribution of the kayaks internationally. This partnership allowed the kayak to be brought to market only six months after its conception!

The Chelsea Center nominated Walden Paddlers for this award because they not only make innovative recycled products, they are also innovative in their approach to business, their technical process, and their incorporation of source reduction and reuse into their designs. For example:

- All kayak hulls and seats (over 95% of the mass of each kayak) are 100% recycled High Density Polyethylene (HDPE), with at least 30% post-consumer material. Since their inception, Walden has diverted over 200 tons of HDPE from the landfill.
- Walden kayaks offer superior hull performance and the lightest weight in their respective classes, dispelling the stigma that recycled products are of lesser quality or performance.
- The kayaks are a uniquely high quality product from a rotational molding process.
- The kayaks are a high value-added use of recycled plastics, retailing starting at around \$400.
- Kayak production has replaced certain military contracts at Hardigg Industries and Universal Plastics, thus retaining industrial capacity and jobs in the region. Hardigg and Universal are now incorporating recycled plastics into other products as well.
- Walden Paddlers is the first to develop and apply entirely reusable packaging for its kayaks. The company has never shipped a kayak in disposable packaging, and has the world's only cooperative network of paddle-sports dealers whose packaging materials are in constant circulation for reuse.

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The Clean Environment Fund

Ever wonder what happens to the deposits from bottles that are not redeemed? The five cents is considered abandoned, and placed into the Clean Environment Fund (CEF). Each year, about \$16 million accrues in this account from bottles that are either thrown away or recycled through curbside programs and may not get redeemed.

The Clean Environment Fund was established by the legislature in 1989 to support recycling, composting, solid waste reduction, and bottle bill related programs. Each year, funds are appropriated from the CEF into the state budget for such programs as equipment grants to municipalities, the Recycling Loan Fund, recycling education efforts for the public and for schools, operation of the Springfield Materials Recovery Facility, and environmentally preferable product procurement. All of these are overseen by the Executive Office of Environmental Affairs and implemented predominantly by the Department of Environmental Protection. Thanks to the efforts of the legislature last year, spearheaded by Senator Stanley Rosenberg and Representative Paul Haley, Chairs, respectively, of the Senate and House Ways and Means Committees, funds were specifically earmarked for the first time to support programs that stimulate demand for recyclable materials. The new earmarking funds many of the programs undertaken by the Chelsea Center and described in this newsletter.

We need your help! The Governor's FY 1999 budget has level-funded recycling projects from the CEF at \$7 million. Please write Senator Rosenberg and Representative Haley and ask that the CEF funds be used for their original intent, that \$10 million be set aside for recycling this year, and that funding continue to be earmarked for demand side programs, such as those the Chelsea Center undertakes. Include specifics on how you have, or can, benefit from the CEF, and how it can help make your business sustainable so that future funding is not needed. For a sample letter, contact MassRecycle at (617) 338-0244. Please send a copy of your letter to the Chelsea Center.

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The Chelsea Center For Recycling And Economic Development

The Chelsea Center for Recycling and Economic Development was launched by the Commonwealth of Massachusetts in 1995 to create jobs, support recycling efforts, and help the economy and the environment by working to increase the use of recyclables in manufacturing processes throughout the state. The Chelsea Center provides a range of technical and business services directly to manufacturers who use, or are interested in using, recovered materials, and works closely with other providers of technical and business services in the state. The Center is part of UMass Lowell's Center for Environmentally Appropriate Materials.

Who is the Chelsea Center?

Amy Perlmutter, Executive Director (amyp@ici.net)

Amy Perlmutter has been Director of the Chelsea Center since its inception in 1995. She has eighteen years of experience in the recycling field, including 13 years in the public sector creating and implementing new programs and initiatives. Prior to coming to the Chelsea Center, Amy was the Recycling Program Manager for the City of San Francisco, and, prior to that, the Solid Waste Manager for Passaic County, New Jersey. She has served on the Board of Directors of the National Recycling Coalition and of MassRecycle, where she has worked on strategic planning and board development issues, and was founding President of the Association of New Jersey Recyclers. She has her BA from the University of North Carolina, and Master in Public Administration from Harvard's Kennedy School of Government.

Gail Harris, Director of Business Programs (gailh@ici.net)

Gail Harris has her MBA with a concentration in Public and Non-Profit Management from Boston University's Graduate School of Management, and her BA from San Diego State University. Her professional experience includes Waste Prevention Coordinator for

the City of Cambridge, MA., where she created a waste prevention action plan for city government; Project Manager at Environmental Futures, Inc., where her work included research on the competitiveness of organizations using socially responsible business practices, industry research, corporate valuations and marketing plan development for a variety of New England businesses. Gail also conducted a feasibility study and wrote a business plan for a wastepaper export business for a non-profit parent organization in Massachusetts. She is currently Treasurer of MassRecycle.

Jodie Siegel, Director of Technical Programs (jodies@ici.net)

Jodie Siegel comes to the Chelsea Center with a background in Textile Engineering and toxics use reduction. She has worked at International Paper as a researcher in the nonwoven textiles division, and the Toxics Use Reduction Institute at UMass Lowell, where she managed the Institute's Cleaner Technology Demonstration Sites and Matching Grants Program and investigated new, non-toxic methods of garment cleaning. Jodie is familiar with production processes and environmental considerations in industry, and what it takes to move a product from conception to production. She has her MS in Environmental Studies from UMass Lowell, and a Bachelor of Technology in Textile Engineering from Shenkar College of Textiles in Israel. Jodie is a member of the American Association of Textile Chemists and Colorists, and the Society of Women Engineers.

James Doherty, Administrative Manager (ccfred@ici.net)

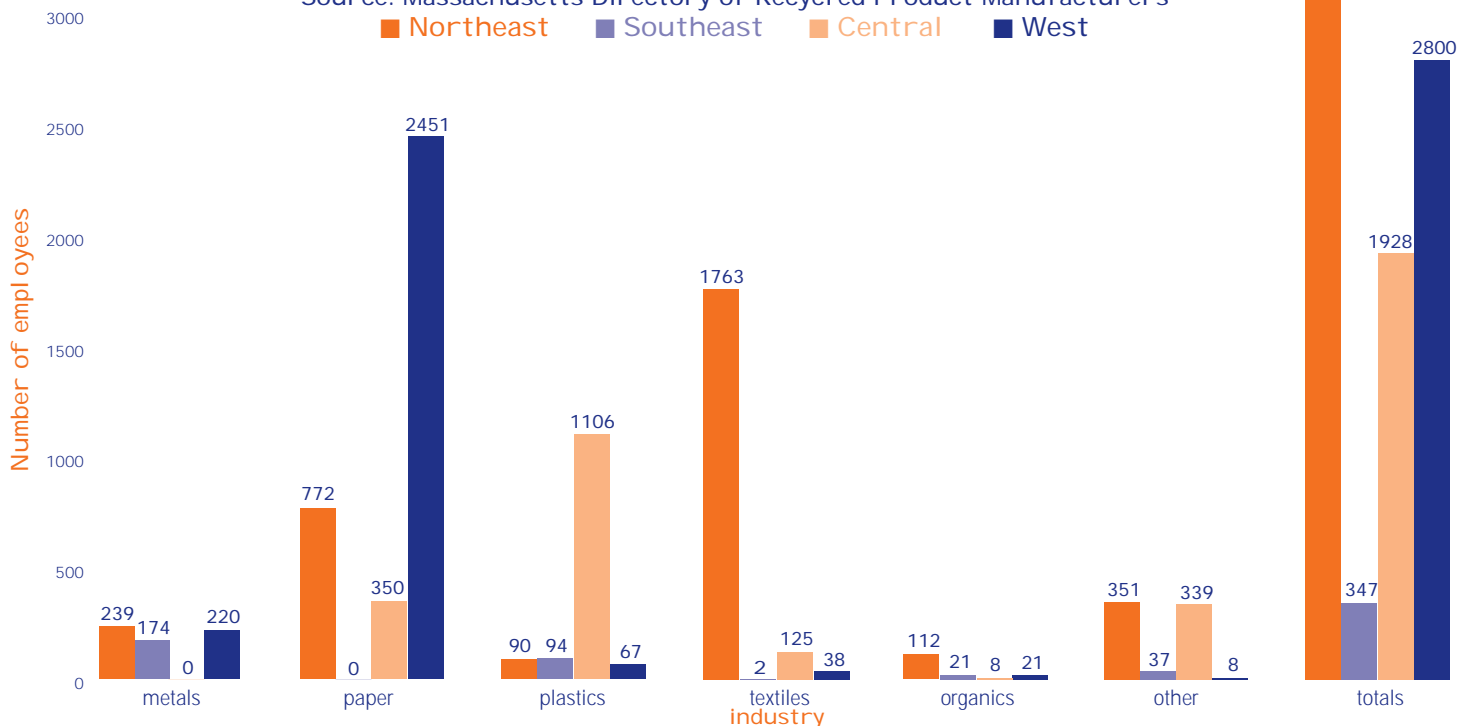
James Doherty is the newest addition to the Chelsea Center. He has worked for state and local government agencies in data collection, management, and analysis on a variety of economic and public health issues. His experience includes such positions as Vital Statistics Data Manager for the Cambridge Department of Health and Hospitals, Breast Cancer Data Manager for the Massachusetts Department of Public Health, and Assistant to the Massachusetts Secretary of Economic Affairs.

Did you know?

Number of Employees In the Massachusetts Recycled Products Industry

Source: Massachusetts Directory of Recycled Product Manufacturers

■ Northeast ■ Southeast ■ Central ■ West



Market Development Strategic Plan

In its budget for this fiscal year, the legislature called for the creation of a *Strategic Plan to Promote the Use of Recyclable Materials*. The Executive Office of Environmental Affairs has asked the Chelsea Center to create this plan.

The Chelsea Center has hired the firm of Dorn and Associates, from Apex, North Carolina, to help develop the Plan. Dorn and Associates has done similar work for the states of Texas and North Carolina. Their team, comprised of Betsy Dorn, Andrew Reamer, Jennifer Hyde, Peter Engel, and Karl Seidman, all have extensive experience in recycling and/or economic development.

The team is assessing the current and projected supply and demand for recyclable glass, plastics, metal, paper, wood, organics, tires, and textiles. Based on these findings, they will conduct an analysis of market development opportunities. They will look at options to stimulate new business development, develop new products by existing firms, help existing manufacturers convert from virgin to secondary feedstocks, and increase production by existing manufacturers. The ultimate goal is to develop a commodity-specific plan that will identify ways to link recycling and economic development in Massachusetts by creating new markets in-state for both materials not currently collected, and those which may currently be recycled in out-of-state markets.

The final products of this process will be a strategic plan, with both program and policy recommendations, and a Memorandum of Understanding that will be entered into between agencies taking a lead in recycling and/or economic development, spelling out each of their roles in implementing the Plan. The Strategic Plan will be completed in the fall. For more information, contact Amy Perlmutter.

Do You Manufacture Recycled Products?

Are you in our directory? The Chelsea Center publishes a Directory of Recycled Products Manufacturers that profiles over 100 recycled product manufacturers in Massachusetts. This is a great way to let people know about your products. If you aren't in our directory, please call the Center and request a copy. It includes a form for you to fill out and fax back for our next update. We also want to link our upcoming web page to yours, if you have one. Email us at ccfred@ici.net and let us know your address.

Technical Research Grants

The Chelsea Center has released a Request for Proposals to all Massachusetts colleges and universities to develop innovations that would increase the demand for, and thus the use of, recovered materials by Massachusetts industries. The research being solicited includes such areas as:

- direct assistance to manufacturers using scrap feedstock
- new products from currently discarded materials
- new processes or technologies to turn waste into new products
- manufacturing processes with broader feedstock allowances to

include recyclable materials

- new scrap-based composites
- technologies that, by reducing costs or improving quality, will help create demand for scrap in the Commonwealth

Final selections of projects will be made by the end of May for work to be carried out during fiscal year 1999. For more information, please contact Jodie Siegel.

Best Practices Workshops

In June, the Chelsea Center will be sponsoring four "Best Practices in Recycling" workshops, in collaboration with the Seattle-based CWC (formerly the Clean Washington Center). Each day-long workshop will present information on the handling of either recycled HDPE, PET, Glass, or Tires & Rubber.

CWC has developed five Best Practices manuals with help from the National Institute for Standards and Technology, US EPA, and related industry groups. The material in the manuals focuses, in large part, on helping recyclers determine what the most cost-effective collection and processing option may be for them. The target audience for these workshops is manufacturers who process or intend to process recovered materials, as well as collectors and processors who handle these materials.

Workshop Dates & Locations

PET	Lowell	Thurs., June 11, 1998
HDPE	Lowell	Fri., June 12, 1998
Tires & Rubber	Marlboro	Tue., June 16, 1998
Glass	Marlboro	Wed., June 17, 1998

For more information, please contact Jodie Siegel or James Doherty.

Recycled Paper Mill Study

The paper manufacturing industry has had a strong presence in Massachusetts for over two hundred years, providing consistent employment and high quality products. The Chelsea Center is working with the Merrimack Valley Manufacturing Partnership (MVMP) to help the state's paper manufacturers continue to provide high quality products while using recovered paper and pulp.

MVMP has worked closely with paper mills throughout Massachusetts to reduce costs, resolve solid waste and effluent discharge issues, and encourage the use of recyclable feedstock. Through this project, MVMP will work with companies to analyze their processes and discuss concerns associated with use of secondary fiber. They will survey approximately ten mills and will do more in-depth analyses of two or three mills. For more information, contact Jodie Siegel.

Plastics Conversion Project

The Chelsea Center is working with the Massachusetts Manufacturing Partnership to identify plastics manufacturers in the state who can incorporate recovered plastic resins into their process. This effort links environmental improvement and economic development by helping to make manufacturers more competitive through the use of recovered materials.

Some of the areas that will be addressed are:

- Technical and process barriers
- Costs and benefits
- Maximized use of recovered resins
- New market development

If you would like to participate in this program, please contact Beverly Cadorette of MMP at (617)727-8158 or Jodie Siegel at the Chelsea Center.

Testing Services Available

The Chelsea Center has funding available for product testing. Any product that is manufactured in Massachusetts using recovered materials (other than in-house scrap) may qualify for this testing program. If you have a viable product, but need independent tests done to qualify for certain markets, you should consider this program. Please submit, in writing, a description of the product and the testing required to Jodie Siegel. Telephone inquiries are welcome.

Pilot Purchase Program

For the last few years, the Massachusetts Operational Services Division (OSD) has sponsored a Pilot Purchase Program to help promote products made from recycled materials. Last year, the Chelsea Center teamed up with OSD to help the State try two new products made from recycled materials: 100% recycled plastic soaking basins for use in medical applications from Sheltech Plastics in Haverhill, and 100% recycled mixed plastic chock blocks from Atlon Labs in Natick. The State purchased 1,350 basins that are being tested in seven facilities including four state hospitals, and 200 chocks which are being tested by 11 state agencies and municipalities.

The goal of the pilot purchase program is to heighten awareness of products made from recycled materials while increasing the state's purchase of recycled products. If you manufacture a recycled product that could be used by the state, contact Gail Harris to discuss how you can get involved.

Fostering Economic Development Workshops

The Chelsea Center has received a grant from the U.S. EPA New England to repeat last year's "Fostering Economic Development through Recycling" workshop. The Chelsea Center is working with the Massachusetts Office of Business Development, the Massachusetts Department of Environmental Protection and the Northeast Recycling Council to present this workshop geared towards educating economic development and finance professionals about recycling.

Two half-day workshops consisting of background information on recycling in Massachusetts, a look at case studies of Massachusetts companies who have received assistance from State financing officials, and a discussion about the recycling industry, will be held in eastern and western parts of the State. In addition, anyone who can bring together at least 15 economic developers and finance professionals can have the workshop brought to their business or town. Contact Gail Harris for more information.

Internships

The Chelsea Center is continuing to accept applications from manufacturers for business or technical interns. If you have a discreet project that can be completed in approximately 120 hours by a business or engineering student, contact Gail Harris.

The Chelsea Center is also looking for qualified interns to fill positions with 10 manufacturers. If you know of any qualified students interested in marketing or accounting, please also contact Gail Harris.

Grants for Exhibitors, New Eng and EnviroExpo

The Chelsea Center is making grants available to reduce the cost of a booth at the Buy Recycled Pavilion at the New England EnviroExpo. If you are a Massachusetts based manufacturer of recycled products, you qualify for this program.

The Expo takes place May 5, 6 and 7 at the World Trade Center in Boston. Nine thousand environmental professionals from throughout New England attend the event. The Buy Recycled Pavilion is sponsored by MassRecycle and the EnviroExpo.

Each booth costs \$540 for MassRecycle Business members and \$600 for non-members. The Chelsea Center will pay for half the cost of the booth. Awards will be made on a first come, first serve basis, as long as exhibit space and funds are available. Funding for this assistance comes from the Clean Environment Fund. Call Gail Harris for more information.

Juggling Milk Jugs

Hood Milk recently changed their milk bottles from clear, a.k.a. natural, HDPE to an opaque white bottle. The move was said to be made to protect the vitamins in the milk from degradation caused by UV light. While the new bottle is still technically capable of being recycled, the change upset many recyclers for a number of reasons:

- it may mean extra sorting at material recovery facilities
- the white color may contaminate both the clear and colored bottles, depending on end markets
- it will mean a reduction in availability of the valuable clear bottles
- the white homopolymer bottles may contaminate colored HDPE bottles, which are generally copolymers.

The Chelsea Center conducted a survey of Massachusetts manufacturers believed to use post-consumer recycled HDPE. Five companies responded. While all were concerned about the bottle, it seemed to cause a significant problem primarily for one.

If you are a collector, processor, or end user who handles post consumer HDPE, we would like to learn more about your experience using these bottles. Your input will help us provide feedback to Hood and the dairy industry about this new package, as well as help us to identify ways to increase the market for this material. In the meantime, Professor Bob Malloy at UMass Lowell will be researching the impacts of the new bottle in terms of the color, physical properties, and processability of mixing it with colored and natural HDPE. The research should be completed by the summer. Contact Jodie Siegel at the Chelsea Center.

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Walden Paddlers not only integrates environmental practices into a product that gets people out into nature, they also prove that high quality, high value, recycled products can compete in the marketplace. According to Paul Farrow, founder and President of the company, "Using recycled plastics gives us a market advantage; people prefer to buy recycled. We are proud to be recipients of this award. Walden Paddlers is proof that recycling can be good business and good for the environment."

According to their mission statement, "Walden Paddlers is dedicated to three simple objectives: First, to help more people pursue the healthy outdoor pleasures of paddling, so they can enjoy nature and help to preserve it for our children. Second, to divert waste from the landfills of our towns by making it into high quality, high value, useful, reusable/recyclable products. Third, to provide a decent living for our company's family and those of its affiliated companies, dealers and suppliers." As far as we can tell, Walden Paddlers is living up to their mission.

To find out more about Walden Paddlers, visit their web site at <http://members.aol.com/waldenpad>, or call them at (978) 371-3000.



Amy Perlmutter (Chelsea Center) congratulates the Walden Paddlers Team on winning the National Recycling Coalition 1997 Award. Left to right: Jim Peters - Universal Plastics; Keith Broadley - Walden Paddlers; Mike Otto - Hardigg Industries; Don Andreoli - Universal Plastics; Tony Macedo - TMC; Joe Stragowski - Hardigg Industries; Amy Perlmutter; Dale Vetter - Walden Paddlers; Joe Peters - Universal Plastics; Jamie Hardigg and Steve Robbins - Hardigg Industries; Paul Farrow - Walden Paddlers.

Manufacturer Profile 2:

Innovative Recyclers

How many uses are there for recycled glass? Innovative Recyclers of Chicopee has identified a variety of markets that could use their clean, ground glass. They began producing cullet (crushed glass) as a feedstock for a fiberglass manufacturer, and from there developed markets that could optimize their material use. These applications range from abrasive media to reflective media to ice melt, applications which often use sand to get the job done. Innovative Recyclers screens abrasive glass from coarse to fine grades, depending on the application.

Glass may have benefit over sand, not just because it is recycled, but for performance and health reasons. For example, when using sand as a blasting abrasive, the airborne particles have the potential to cause silicosis, a lung disease, due to the free silicas the sand contains. The absence of free silicas and the amorphous nature of the ground glass particles eliminate this problem.

When used as an ice melt, the gritty nature of the glass helps prevent skidding and, when the sun shines, the heat generated by the reflection helps to melt the ice. Additionally, glass is benign, even beneficial, to grass, aerating the soil to promote growth.

For more information about Innovative Recyclers and their product line, please contact Jodie Siegel.

New Financial Assistance at MVMP

The Merrimack Valley Manufacturing Partnership, a non-profit organization located in Lowell, has created a new program designed to assist small to medium-sized manufacturers in accessing \$5,000 - \$100,000 loans for improvement of manufacturing processes and business practices. The funds are used to implement manufacturing upgrades and provide the associated hardware and software necessary for ISO/QS 9000 projects.

The loan program was created because MVMP saw that there was a need to provide manufacturers with the resources necessary to make these kinds of improvements and stay competitive. According to Fran Eagle, Executive Director of MVMP, "There is no program that we know of in the state of Massachusetts which allows the company to have money, or use money, for what could be considered almost an intangible."

The program is supported by 15 banks from around the region, including BankBoston, Fleet Bank and others. Loans are available with an interest rate at prime or a maximum of one point above prime. In order to apply, a company must have financial statements projecting out one to three years. For more information, call Gail Harris at the Chelsea Center.

To learn more about other business and technical services for the recycling industry, call the Chelsea Center and ask for our Guide to Services for the Recycling Industry.

Opportunities

New Business Council Started

MassRecycle, the Massachusetts Recycling Coalition, has created a new Business Council to serve the specific needs of its Business Members. The Council works to provide educational and networking opportunities for recyclers and solid waste professionals. Currently, the Business Council is planning a networking "brown bag" luncheon at the EnviroExpo New England on May 6, 1998. For more information on the Business Council or details on the luncheon, contact Roxanne Matthews at (617) 338-0244.

Recycling Industries Reimbursement Credit

The Massachusetts Department of Environmental Protection is in the process of developing a new \$500,000 program to provide financial assistance to Massachusetts recycling processors and manufacturers. *The Recycling Industries Reimbursement Credit* was recently enacted into law by the Legislature and Governor. The legislative intent of the Reimbursement Credit is to stimulate new and unique recycling activity by making the use of recycled materials more competitive with the use of virgin materials. DEP is reviewing options for awarding the funds which may include: 1) a supply credit designed to lower the price of recycled materials/ commodities purchased for processing/manufacturing; 2) an investment credit (cont. on p. 6)

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which provides a direct grant to be applied to the purchase of capital equipment, improvements, or property; and, 3) a sales credit which promotes the private or state purchase of feedstock or products. DEP has been soliciting input from industry on how the Reimbursement Credit could be designed to both encourage new recycling activity and maximize the use of recycled materials.

Interested business persons should contact Stephen Long, DEP's Recycled Market Development Planner at (617) 292-5734.

NRC'S NATIONAL RECYCLING CORPS

In April of 1997, the National Recycling Coalition (NRC) was asked to participate in the Presidents' Summit on America's Future.

Hosted by President Clinton and his four living predecessors, and chaired by General Colin Powell, the Summit focused on the future of opportunity for the youth of America. One of the key features of the event was a promise by Summit participants to undertake an initiative that would enable our nation's at-risk youth to lead healthy, fulfilling and productive lives.

As part of its promise, the NRC is undertaking a multi-year initiative to provide job training opportunities in the field of recycling for high school and college-aged youth. Through this initiative, called the National Recycling Corps, the NRC seeks companies and public agencies that are involved in areas such as: (1) recycling collection,

(2) materials processing, (3) planning and regulation, (4) manufacturing of industrial and consumer products from recycled materials, (5) market development, and (6) retailing consumer products with a strong focus on recycling and/or recycled content. The NRC is looking for organizations that are willing to provide:

- administrative/managerial internships for college students
- apprenticeships for high school and vocational/technical students
- long term mentoring support for students

The NRC will begin an intensive outreach campaign planned for selected regions this spring to identify interested businesses and agencies. If you are interested in having your organization participate in the National Recycling Corps, please contact Will Ferretti, NRC's Executive Director at (703) 683-9025, ext. 201.

Classifieds

Full-time Positions

The Chelsea Center has become aware of the following job openings with recycled products manufacturers. For more information call (617) 887-2300.

- Kayak Assembler - Walden Paddlers, Concord
- Injection Molding Shift Supervisor - Selectech, Taunton
- Business Opportunity Analyst -Recycline, Somerville

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