

Remarketable News

CHelsea CENTER
FOR RECYCLING AND ECONOMIC DEVELOPMENT

MANUFACTURER PROFILE:
PRO PEL PLASTECH



Pro Pel Plastech is a family affair. (From left to right): Office Manager Rene Nickerson (Joe, Sr.'s mother); Chief Operating Officer Joe Nickerson, Jr.; Chief Executive Officer Joe Nickerson, Sr.; and Treasurer/Bookkeeper Marcy Nickerson (Joe, Sr.'s wife).

When some friends in the plastics business talked Joe Nickerson into opening Pro Pel Plastech in 1984, the plastics recycling industry was in terrible condition. "All you could do was toll materials and give them back. There was no demand for recycled plastics because the price for virgin was so low," says Nickerson.

But despite the lousy market conditions, Nickerson stuck with it because he thought plastics recycling was the right thing to do. He credits state recycling legislation and increasing landfill prices in the early 1990s for the industry's turnaround. Today, Pro Pel processes about 14 million pounds of plastic film each year. The company pelletizes LDPE and HDPE film and provides custom slitting of film rolls to customer specifications. Pro Pel is also the largest urethane reprocessor in the country.

From the start, Pro Pel has been a multigenerational family affair. Joe, Sr. and his son, Joe, Jr. ran the business for the first three years. Later, Joe, Sr.'s mother began working at the front desk and his wife became the company treasurer. Pro Pel now employs about 20 people.

Meeting customer expectations has been crucial to the company's success. "People are getting more demanding about the quality of recycled products," says Nickerson. In response to customer demand, Pro Pel added a blending service to mix film resins so that they will extrude consistently. The company has also diversified beyond recycled plastics and into used plastics equipment sales. Pro Pel also does its own trucking.

The biggest challenges today for plastics recyclers, says Nickerson, are finding good help, financing, cash flow, and dealing with far away companies. For instance, bankruptcies in the industry cost

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SERVICE PROVIDER PROFILES:
THE NEW ENGLAND TRADE ADJUSTMENT CENTER, THE ICA GROUP, AND THE COMMONWEALTH CORPORATION

Running a business can get very complicated, and when you face challenges that threaten your company, it can seem very lonely. But no matter what type of problem you are dealing with, the Chelsea Center can probably help you find the specialized assistance you need. For example, here are three organizations that fill special niches to help Massachusetts companies thrive.

New England Trade Adjustment Assistance Center, Inc. (NETAAC) helps manufacturers who are negatively affected by imports, such as the loss of sales or jobs. Based in Boston, NETAAC can provide matching funds to hire a consultant to help you improve your competitive position by solving problems in manufacturing and engineering, marketing, financial and general management, quality, and information technology. For more information, visit www.taacenters.org/netaac.asp or call (617) 542-2395.

ICA Group is a national nonprofit organization that develops and strengthens employee-owned and community-based businesses. They'll assist with feasibility studies and business plans, workforce education, capacity building with community partners, financing, ownership succession strategies, and employee ownership. They also provide business advice to community development corporations, nonprofits, and cooperatives. For more info, visit www.ica-group.org or call (617) 232-8765.

Commonwealth Corporation is a quasi-public organization responsible for administering and delivering a wide range of public and privately funded initiatives designed to meet the labor needs of businesses. Their Business and Employee Services unit provides financing, turnaround management advice, and technical assistance aimed at retaining and growing jobs in the Commonwealth. They also provide business start-up training to aspiring entrepreneurs and consulting services to help employers develop and implement worker training strategies. They can also assist with services to employees impacted by layoffs and help fill job vacancies through referrals of dislocated workers. For more info, visit www.commcorp.org or call (617) 727-8158.

On our web site at www.chelseacenter.org, you can find more than 60 service providers eager to help you solve your business's problems. You can also order a hard copy of the Guide to Services for the Recycling Industry by calling our office at (617) 887-2300.

The Chelsea Center's newsletter will now be known as "Remarketable News." Thanks to the CWC in the Pacific Northwest for letting us use the name of their former newsletter, and thanks to those of you who suggested many other good ideas.



RE-MADE IN MASSACHUSETTS ALLIANCE SEEKS NEW FOUNDING MEMBERS

The Re-Made in Massachusetts Alliance is seeking manufacturers of recycled products to join its network. On May 9, the Alliance's steering committee hosted a reception at the New England EnviroExpo to unveil the network and to encourage recycled product manufacturers to join.

During the reception, steering committee member Greg Conigliaro of Conigliaro Industries discussed the benefits of participating in the network. Amy Perlmutter, executive director of the Chelsea Center, reviewed how the network came to be and provided statistics on the benefit that recycled product manufacturers bring to the state's economy. Amy also unveiled the Re-Made logo and a mock-up of a joint web site that Alliance members could use to market their products.

After the reception, three new members joined the network as founding members: Homestead Industries, Littlebrook Management, and Recycline, Inc. Each founding member received a roll of 1,000 Re-Made in Massachusetts stickers to put on their products and shipping boxes.

The Commonwealth's 1999 Strategic Plan for Recycling Market Development recommended the development of a network of recycled product manufacturers. The Chelsea Center began organizing the effort late last year by surveying manufacturers, hiring a network consultant to interview a sample of companies about their needs, and holding a focus group. In January 2001, a steering committee of manufacturers—Greg Conigliaro from Conigliaro Industries; Michael King of SelecTech, Inc.; Randy Elithorpe of Bay State Paper; Joe Nickerson of Pro Pel Plastech; and Ken Schlossberg of Recycle Away Group Services—began meeting to discuss how to get the network off the ground, what types of services to provide, and how to get manufacturers involved. The Chelsea Center continues to provide staff support.

The next meeting of the Re-Made in Massachusetts Alliance is September 12 at 8:30 a.m. at Conigliaro Industries in Framingham. To find out more about the Alliance and how to join or get involved, contact Michael Dimino at michaeld@chelseacenter.org or one of the steering committee members. All steering committee meetings are open to recycled product manufacturers. For a limited time, founding member dues are only \$150.

WHY SHOULD I JOIN A NETWORK?

A network is a group of companies in a single industry or, in the case of recycling, a group of complementary industries, that join together to strengthen their individual businesses and enhance their profitability. Working together, they can achieve more than by working alone. Networks allow companies to share information, leverage resources, and conduct joint business arrangements. They also provide the ability and flexibility for growing firms to stay independent, yet use the leverage of other companies to achieve large-scale success.

In the Commonwealth, the Manufacturing Extension Partnership (MEP) runs a networks program for businesses. During the May reception for the Re-Made in Massachusetts Alliance (see main article), Jack Healy, operations director of MEP, gave examples of how such alliances have helped businesses in the state and discussed ways that the MEP can support the Re-Made Alliance.

During the reception, Joe Szocik of Attleboro-Providence Jewelry Network, one of the more successful networks in the region, emphasized the ability of networks to undertake collaborative projects that individual companies wouldn't otherwise pursue. For example, his network raised substantial funds and got great deals for computer training for its members. Joe also outlined the four main components of a successful network—recruitment, an action agenda, organization/structure, and project implementation.

If you are a recycled product manufacturer, we strongly urge you to take advantage of the benefits of networks by joining the Re-Made in Massachusetts Alliance. To become a member, email Michael Dimino at michaeld@chelseacenter.org or call him at (617) 887-0410.

A CHELSEA CENTER BOOK RECOMMENDATION – MATERIALS MATTER: TOWARD A SUSTAINABLE MATERIALS POLICY

A new book entitled *Materials Matter: Toward a Sustainable Materials Policy* takes a hard look at the remarkable history of America's industrial materials. The book argues for more ecologically compatible policies focused on detoxification and dematerialization, including recycling and reuse, new and advanced materials, renewable resources, bio-based materials, and green chemistry. It also looks at several policy options to increase the use of recycled materials.

The author, Kenneth Geiser, is the director of the Massachusetts Toxic Use Reduction Institute, the Lowell Center for Sustainable Production, and the Center for Environmentally Appropriate Materials (CEAM) at UMass Lowell. CEAM houses the Chelsea Center.

"The work that has been done on building recycling markets in Massachusetts is a model for how we need to promote recycling nationwide," says Geiser. The book is being published by MIT Press and should be available in bookstores in July.

If you are interested in learning more about this book and the author's approach to a sustainable materials policy, please let us know by sending an email to amyp@chelseacenter.org. If there is sufficient interest, the Chelsea Center will set up a program featuring Dr. Geiser.

TWO NEW STAFF JOIN THE CHELSEA CENTER

Michael Dimino has joined the Chelsea Center staff as our director of business programs. Michael has 30 years of small business experience, both in the United States and abroad. Over half of his career has been in manufacturing and capital goods, with more than fifteen years in the plastics industry. He has worked with businesses at all stages of development—from startup to turnaround. Michael is a past president of a plastics trade association, a member of the Community Business Network Advisory Committee, and serves on the Economic Development Committee of the Massachusetts Community and Banking Council. He is also multilingual and a Harvard College graduate.

Michael is taking over for **Gail Harris**, who after five years with the Chelsea Center, has left to take care of her new baby, Livia. We thank Gail for her hard work and dedication and wish her all the best in her new role.

We also welcome **Alan Moore** as our new director of technical programs. Alan is an environmental engineer with a background in process engineering. He has worked as an engineer for 20 years for nationally and internationally known consulting firms. He has a great depth of experience managing projects that require innovative solutions to unique problems.

Alan is taking over for **Jodie Siegel**, who after nearly four years with the Chelsea Center, has left to care for her daughter, Sophie. Jodie managed the technical research we publish and the demonstration projects we sponsor. She also provided input to the Department of Environmental Protection in their beneficial use determination regulations and provided technical assistance to many manufacturers. We thank Jodie for all of her hard work and wish her well.

And, the Chelsea Center welcomes back **Jennifer Capuano**, director of technical programs, from maternity leave. Jennifer gave birth to a baby boy, Nicholas Andrew, in December.

WORKSHOP IDENTIFIES TRENDS IN RECYCLING MARKETS

Speakers at the Chelsea Center's market development workshop at the New England EnviroExpo in May revealed a number of interesting trends:

Globalization is the biggest problem facing the **steel** industry, as steel imports are accounting for a larger percentage of domestic steel use. Consolidation of the U.S. steel industry will probably be required. The next two years will be telling. (Chuck Nettleship, Steel Recycling Institute)

For the **organics** market to grow, contractors need better information about the product and composters need to produce higher quality products to compete in high-end markets. Composting facilities must still rely on tipping fees for incoming materials as only 25% of the revenue from composting businesses comes from product sales. (Geoffrey Kuter, Agresource, Inc.)

Glass markets continue to suffer from market gluts and contamination by ceramics and Pyrex. Overseas markets are being explored, e.g. sending amber glass to Argentina. An emerging problem is the Corona bottle—the paint turns the glass gray when it is recycled. (Frank McAuliffe, Container Recycling Alliance)

The cost to manufacture virgin **plastics** is rising, so the price for recycled plastics will also rise. The market for commingled plastics is changing as new technologies allow mixed plastics to be recycled together. The main markets for engineered plastics are in the Far East. Automakers have committed to using recycled plastics, which should help the secondary markets for engineered plastics. (Tom Tomaszek, Plastic Solutions, Inc.) The biggest growth in plastics is with PET (bottles marked #1), where demand for recycled PET is outstripping supply. The major plastics associations will continue to push for collection of all plastic bottles in recycling programs to increase supply. (Ted Siegler, DSM Environmental Services)

Markets for most grades of **paper** are relatively stable now, but office grades are getting hit hard. Paper prices have dropped about 50% in the last year. (Ben Harvey, EL Harvey and Sons) The Newark Group's Fitchburg mill will open in 2002 and will take 100,000 tons per year of residential mixed paper (RMP). About 280,000 tons of RMP is estimated to be available in Massachusetts for recycling. (Moe Banville, Newark Group)

SYMPOSIUM BRINGS ACADEMIC RESEARCH TO THE REAL WORLD

Researchers and representatives of several state agencies, industry trade associations, and the private sector came together on April 5, 2001 for a symposium of presentations on technical research funded by the Chelsea Center.

Dr. Chris Swan of Tufts University and Dr. Robert Malloy of UMass Lowell talked about synthetic lightweight aggregate made from mixed plastics and coal fly ash. Dr. Richard Farris and doctoral candidate Drew Williams of UMass Amherst discussed how powder processing techniques can be used to recycle rubber tires into new parts.

Dr. Yuegang Zuo of UMass Dartmouth shared his work on the use of shell chitin from seafood waste to recycle nutrients in aquaculture effluents and residual dyes in textile wastewater. Robert Kirby, an independent researcher specializing in glass, spoke about his investigation of the effect of manufacturing fused glass paving with a mineral addition.

The meeting allowed attendees to review new research results that may benefit their own work, while giving the scientists feedback on the applicability of their research. "The meeting gave us the opportunity to present our work to the real world, and to specialists in recycling, and to meet and interact with groups, organizations, and individuals we have never worked with in the past," says Dr. Richard Farris. "Working with the Chelsea Center forces us to look for real applications, to attempt to solve everyday problems, and to explain and communicate our results to those who have an interest in applying or commercializing our results," says Farris.

Technical reports on these projects should be available in the late summer. For more information on this and other research funded by the Chelsea Center, review our list of technical reports on our web site at www.chelseacenter.org.

LOWELL WORM COMPOSTING PROJECT MOVES FORWARD

With a \$25,000 Recycling-Based Community Economic Development Grant from the Chelsea Center, UMass Lowell's Center for Family,

Work and Community created a partnership with the City of Lowell and other community groups to pilot a vermicomposting project (composting with worms) with the aim of developing a large-scale composting enterprise in Lowell.

During the pilot phase, the team provided training to five restaurants, arranged a twice-per-week pick-up schedule and transportation, and set up composting operations on the North Campus of UMass Lowell. The compost produced during the pilot has been used in demonstration projects on campus, in the city, and at a YWCA.

Based on the success of the pilot, the team is proceeding with business planning, site identification, and fundraising for a full-scale operation. They've also developed a great logo for their compost. Several city and university leaders have pledged their support to the project.

Eventually the team hopes the project can expand to include food wastes, cardboard, and paper from more than 100 restaurants in the city, as well as the city and university's yard and landscape trimmings.

One of the more interesting elements of the Lowell project is the social benefits a full-scale operation could bring to the Southeast Asian community. Lowell is home to a growing tourism industry and many Southeast Asian restaurants. A full-scale composting operation would collect food waste from Asian restaurant owners, many who have historical roots in farming. The finished compost would then be used by local farmers, who would then close the loop by providing fresh produce back to the Asian restaurant owners.

For more information about the project, please contact David Turcotte or Julie Villareal at (978) 934-4677. For more information about the Recycling-Based Community Economic Development Program, contact Jennifer Capuano at (617) 884-6237 or jenniferc@chelseacenter.org.

NEW TECHNICAL RESEARCH GRANTS AWARDED

The Chelsea Center has awarded five new technical research grants for FY 2002:

- Richard Farris, UMass Amherst—High-pressure, high-temperature sintering of cross-linked rubbers and its application to road paving and roofing materials. This is a follow-up to his FY 2001 work on powder processing techniques.
- Fred Hooper, Geo-Testing Express—Recycled cold-mix asphalt paving products containing mixed plastics.
- Mohsen Kashi, GEI Consultants, Inc.—Flowable fill made with mixed-color glass cullet.



Project Managers Dave Turcott and Julie Villareal with three project volunteers, Francine Corbin, Patty Kennedy, and Steve Staines, in front of their vermicomposting display.

- Robert Malloy, UMass Lowell—Full-scale synthetic lightweight aggregate production and its use as a construction material. This work will be done in conjunction with Tufts University and will be a follow-up to research sponsored in previous years.
- Alton Wilson, UMass Dartmouth—Use of flock fiber derived from textile yarn/fabric waste for industrial and construction applications.

All of the researchers will produce technical reports that will be made available on the Chelsea Center web site.

DIRECTORY OF TESTING LABS NOW AVAILABLE

The Chelsea Center's *Directory of Testing Laboratories for the Recycling Industry* is available to manufacturers, individuals, and organizations who need to find experts in materials and products testing. The directory of more than 200 testing laboratories is organized so you can easily locate a laboratory according to the type of testing needed or the material being used. The labs are divided into three categories: private laboratories, federal laboratories, and university research centers.

Private laboratories offer their expertise on a fee-for-service basis and provide expertise on specific materials, technologies, or applications. Federal laboratories perform research on materials or technologies that may be applicable to technology needs in manufacturing with recycled materials. Although the research in these labs may not always be directed at commercial technologies, it may provide vital information on materials characteristics or technologies in development. University research centers perform basic and applied research involving the analysis or characterization of plastics, wood products, and other commonly recycled materials.

To obtain a copy of the directory, call us at (617) 887-2300. The directory will also be up on our web site later this year.

TRADE SHOW GRANTS AND INTERNS AVAILABLE

Trade Show Grants

For Whom: Recycled product manufacturers who would like to market their products at a trade show
How Much: 50% of the cost of exhibiting, up to \$500 per year
Deadline: open
Contact: Kirsten Hickey at (617) 887-2300.

Recycling Internship Program

For Whom: Massachusetts recycled product manufacturers with business or technical problems and seniors or graduate students with the skills to help
How Much: Intern stipend of up to 375 hours is paid by the Chelsea Center
Deadline: Summer internships must begin on or after July 1 and end by September 30. Fall projects will begin in September and end by December 31. Check with us later in the year for 2002 internship deadlines.
Contact: Kirsten Hickey at (617) 887-2300.

NEW TECHNICAL REPORTS AVAILABLE

Seven new technical reports on research sponsored by the Chelsea Center have been released since our last newsletter:

Technical Report #31: Characterization of Foundry Sand Waste

Technical Report #32: Investigation of Tire Shreds for Use in Residential Subsurface Leaching Field Systems: A Field Scale Study

Technical Report #33: Potential End Uses For Polyester Fiber Waste: A Laboratory Study

Technical Report #34: Use of Post-Consumer Resin by Massachusetts Manufacturers Survey Results

Technical Report #35: Development of Synthetic Lightweight Aggregate for Construction Material

Technical Report #36: Process Development of Scrap Rubber/Thermoplastic Blends

Technical Report #37: Reuse of Street Sweepings and Catch Basin Cleanings in Worcester, Massachusetts: Regulations, Characteristics, Technologies, Implementation

All reports are available free of charge to businesses, individuals, and governments in Massachusetts, and are \$10 each for out-of-state requests. The reports are also available free of charge in PDF format on our web site, under "Publications."

OTHER NEWS FROM AROUND THE STATE

DEP TO REVISE REGULATIONS FOR BENEFICIAL USE DETERMINATIONS

The Department of Environmental Protection (DEP) is drafting new regulations for beneficial use determinations (BUDs). Last fiscal year, an advisory committee helped DEP identify potential regulatory changes and based on that input, DEP hopes to finish drafting the new regulations this summer.

One key change to expect in the draft regulations, according to DEP's Sean Griffin, is multiple categories of review for different types of beneficial uses, which will simplify the application and review process by setting requirements that are commensurate with the potential risk. The regulations will also establish characterization requirements and standards for BUD materials. DEP will hold public hearings on the draft regulations later in the year.

Recent BUDs have addressed using mixed plastics as an aggregate in asphalt and using tire chips in bridge abutments, as backfill, and in drainage applications. While BUDs for recycling applications are increasing, most are still related to landfill operations, such as alternative daily cover, drainage, and vegetative support. DEP is also considering an expansion of its policy on street sweepings and a more thorough characterization of catch basin cleanings.

The BUD application can be found at www.state.ma.us/dep/appkits/forms.htm#sw

WHAT'S A BUD? A BUD is a beneficial use determination. When solid wastes are used as effective substitutes for a commercial product or commodity, it is called a "beneficial use" of the solid waste. DEP must determine whether particular uses are beneficial and whether they will harm public health or the environment. When a beneficial use determination is made, the material is no longer considered a solid waste.

BUYING AND SELLING RECYCLED PRODUCTS

Curious how to get your products used by state and federal government agencies? Start by checking into these two resources:

The Commonwealth Procurement Access and Solicitation System (Comm-Pass). Visit www.comm-pass.com to register your business in the state's directory and to view open solicitations. The Operational Services Division operates the Commonwealth's Environmentally Preferable Product (EPP) Procurement Program and is increasing the number of EPPs, including recycled products, that are available to state agencies. To learn more about the contracts for EPPs, visit the state's EPP web site at <http://www.state.ma.us/osd/enviro>.

"Selling Environmental Products to the Federal Government." This guide will help you better understand how to reach federal buyers. It outlines the federal government's environmentally preferable purchasing guidelines, answers frequently asked questions, and offers helpful hints on simplifying the process of marketing and selling your products to the federal government. Document number EPA-742/K-97/002. Published October 2000. Available by calling (202) 260-1023 or online at www.epa.gov/oppt/epp/pdfs/stgbrochure.pdf.

GET RECYCLED PAPER FOR LESS THROUGH THE RECYCLED PRODUCTS PURCHASING COOPERATIVE

Buying reasonably priced recycled paper is now easier for Massachusetts companies. WasteCap has become the New England affiliate of the Recycled Products Purchasing Cooperative (RPPC), a nonprofit program dedicated to increasing the use of recycled copy paper nationwide through discount pricing and by promoting the importance of converting from virgin to recycled paper.

With more than 140 public and private sector members, the RPPC has negotiated a contract with Willamette Industries to provide substantial price discounts to co-op members. The RPPC's major product is Willamette's 30% post-consumer recycled copy paper, which is sold in letter and legal sizes, continuous-feed, and colors. It is one of the ten recycled papers tested and recommended by the U.S. Government Printing Office. To become a member, an organization can simply contact WasteCap to place their first order. Membership in the RPPC is free.

For more information or to obtain a price quote, visit the RPPC web site at www.recycledproducts.org. You can also call Dan Ruben at WasteCap at (617) 236-7715 or the RPPC at (800) 694-8355.

INTERESTED IN TRADE WITH CHINA?

The Pangaea Group and the Environmental Business Council of New England will be hosting a trade delegation to China August 7-18, 2001 for companies and organizations interested in the limitless opportunities of China's environmental market. For more information, visit our website at www.chelseacenter.org and go to the "Opportunities" section.

MASSRECYCLE PROMOTES RECYCLED PRODUCTS

MassRecycle, the state's recycling association, hopes to spread the buy recycled word again next November through Massachusetts Recycles day, part of the national America Recycles Day efforts. Look for information this fall on the MassRecycle web page at www.massrecycle.org.

Manufacturer Profile: continued from page 1

Pro Pel over \$100,000 last year. He also fears that all of the progress made in plastics recycling could be lost because of the high price of electricity. "The plastics recycling industry will be one of the first casualties of high energy prices, because our margins are so small," says Nickerson.

Despite the challenges, Nickerson is committed to helping the recycling industry grow. He is a steering committee member for the Re-Made in Massachusetts Alliance, a new recycled products manufacturers network (see page 2 for details). "The network is getting small companies to communicate and help each other in a very cooperative way," says Nickerson.

You can contact Pro Pel Plastech by calling (413) 665-3379 or visiting www.pro-pel.com.

IN MEMORY: GARY DIADONE The Chelsea Center is sad to pass along the news of the death of Gary Diadone. Gary died on January 24. Gary identified two projects that have increased the use of recovered paper in the state (see our Fall newsletter at www.chelseacenter.org/pdfs/fall2000.pdf) and had a hand in all of our paper-related technical reports. He worked most recently for the Merrimack Valley Manufacturing Partnership as a project manager. Gary's death is a loss of a valuable professional, a dedicated environmentalist, and a nice person. Donations can be made in his name to Mariner Health Care, 360 Electric Avenue, Fitchburg, MA 01420.

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