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NewsVoice of Salvage, Waste and Recycling

#### Public works award granted

Shoreline Transfer and Recycling Station, located in King County, Washington, was reopened in early 2008 following a ground-up redevelopment and features numerous environmentallysustainable attributes. It was chosen as a Public Works Project of the Year for 2009 by the American Public Works Association.

The award honors excellence in public works projects and recognizes the alliance between managing agencies and the innovative minds that create and implement these projects.

The features that earned the platinum rating include:

•Solar panels that will provide up to five percent of the building's energy needs.

•The use of natural daylight as the primary light source through translucent wall panels and skylights, reducing energy costs by 50 percent per year.

•A natural ventilation system, reducing energy needs for ventilation by 80 percent.

•Green building materials include: recycled content steel, Forest Stewardship Council-certified wood, and fly ash concrete.

•Plants filter contaminants and sediment from surface water runoff.



# Recycled plastics markets stabilizing



Nicos Polymers' extensive reprocessing capabilities allows for the reclamation of multiple polymer types. Nicos has the capability to process these polymers into several different forms including pellets, powders and regrinds. This allows the reclaimed materials to be provided in the optimal geometry for specific manufacturing processes.

#### by MIKE BRESLIN

mbreslin@americanrecycler.com

Last October the bottom fell out of commodity prices and plastic recyclers were stunned. But this is a tough, resilient sector of the recycling industry and the people in it are adaptive to up and down markets and working with lean margins. After all, it's a relatively young industry – only about 30 years old – and the players have learned from previous economic bumps and bruises.

For instance, after a healthy 1995, commodity prices nosedived in 1996 and the lessons were not forgotten – watch prices and demand closely, avoid burdensome inventories, always look for new customers, even new markets if necessary, and try to have orders in hand before acquiring new supplies.

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"We reached peak prices last summer because the crude oil price was very high and all the plastics made from petroleum products were consequently high. Life was good. There was demand and always a shortage of supply because we did not have enough recycled plastics to satisfy all the domestic and export demand. We are returning to 2005 price levels when crude oil was about \$50 per barrel, like it is priced today," said David Cornell, technical director for the Association of Post-Consumer Plastic Recyclers.

Since late last year, plastic recyclers have been slowly clawing their way back. There may have been some unexpected "winter vacations" for management and labor, but the business is reviving. It is nowhere near the peak levels of last summer, but getting back to a sustainable business model.

Steve Anderson, a partner at APC Recycling in Killingworth, Connecticut reminisced about his bleak winter. "November, December and January were the roughest three months in the 20 years I've been in the business. After that, it started to slowly pick up. We move a lot to China and exports to there have picked up, not at a level that it was last summer, but it has stabilized and is moving pretty steadily. I wouldn't say domestic sales are flat. We can still move product, but the demand is certainly not robust. Some of the grades that have normally picked up at this time of year are still fairly low and hard to move."

See PLASTICS, Page 2

AmericanRecycler.com

## EPA budget to advance industry goals

Environmental Protection Agency (EPA) administrator Lisa P. Jackson released EPA's fiscal year 2010 budget blueprint.

Expanding on the investments of the American Recovery and Reinvestment Act, this \$10.5 billion budget allows EPA to provide solutions to our economic crisis. It significantly improves accountability and transparency, ensuring fiscal responsibility at a time when every dollar counts.

"EPA's new budget reflects the President's commitment to growing a clean energy economy while protecting human health and the environment," said administrator Jackson.

#### **Budget highlights include:**

Maintaining and improving clean water infrastructure: To maintain and improve outdated water infrastructure and keep wastewater and drinking water clean and safe, EPA has budgeted \$3.9 billion. The funding will support efforts around the country to build and renovate an estimated See EPA BUDGET, Page 4

# Recovered paper in recovering markets



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# Plastics

APC ranks among the top 100 plastics recyclers in North America and processes and markets between five to seven million pounds a month. "Exports were absolutely dead the first two or three weeks of January. It picked up a little towards the end of the month. In February, exports started to warm up and in March it picked up pretty significantly, and it's continued picking up in April," said Anderson.

Late last fall, the crushing blow to post-consumer plastics came from the drop in orders from China. In fact, demand evaporated with boatloads of recycled materials stalled in Asian harbors. Polyethylene terephthalate (PET) is a good example: Up until the fall of 2008, the United States had been exporting 500 to 700 million pounds of PET annually to China. PET is one of the largest and most commonly recycled plastics used in food grade packaging such as for water and beverage bottles. The collection and processing rate for 2007 in the United States (most recent available) was 1.4 billion pounds of PET. Approximately 1 billion pounds of PET is recycled domestically, the balance is exported, most all going to China. When China stopped buying, the surplus increased.

At the same time, curbside collection continued at more or less the same volume and delivered material to material recycling facilities (MRFs). For the 480 MRFs, the trucks kept coming in and inventories kept growing larger. Without ready markets to move the material, there were only two choices: store it or shut down. A few MRFs had to shut down, but most survived – many because they operate under municipal financing. MRFs either dumped inventory



Nicos Polymers' 180,000 square foot purpose-built facility houses 16 grinders with de-metalizing, elutriation and multiple size reduction capabilities.

at a loss, or stored the material, waiting for demand and prices to recover. On the positive side, unlike paper and cardboard, baled plastics can be stored outdoors to avoid warehousing costs.

David Cornell explained the ramifications: "People were warehousing the material. The question was where in the line do you store it? It's worth money, now and in the future. The difference between the future value and the price paid was the carrying costs to store the stuff."

Reclaimers and brokers like APC Recycling were hit hard by inventories backed up in the supply chain, but had much greater flexibility than MRFs to manage it. APC acquires material from professional recyclers that bale products, from distribution centers and from manufacturers generating industrial scrap. The company picks up polyethylene, polypropylene, polyolefin and other scrap plastics from all over the country, but concentrates in the northeastern market. APC brings most material into its grinding facilities in Connecticut, but also brokers exports through Vancouver to China. About 25 percent of APC's business is brokered for export and does not come through its facilities. "Even if it's close financially to bring it here, we prefer to do so to check and assure quality and take the proper pictures for export," said Anderson.

Like many processors these days, Anderson is extremely cautious about inventory. "Right now I don't allow any of our people to buy anything for inventory unless it's already pre-sold. We don't speculate. Unless we have orders in-hand we don't buy. I'm not going to get stuck with a warehouse of goods if things fall off a cliff like late last year." This seems to be a prevailing attitude among processors. Back in the days of strong demand and peak prices, processors would gamble that they could warehouse today and sell tomorrow. These days, caution is the byword for inventory.

Post-consumer processors are also buying at much lower prices. Even though they add value through consolidation, shredding, grinding, pulverizing, fine separation, pelletization and quality assurance, it's essentially a buy-low sell-high business.

Post-industrial recyclers like Nicos Polymers Group of Nazareth, Pennsylvania have been affected by the economic downturn, but are nevertheless optimistic about the future. Nicos is among the top ten United States recyclers and processes 90 to 100 million pounds annually. In addition to general purpose processing and sales of polymers, Nicos does toll processing for large manufacturers. Kevin Cronin, CEO of Nicos put it this way, "The trading and selling part of our business slowed significantly in November and December, but we see niches of recovery and they tend to be very material-specific." Nicos is seeing relatively good demand for packaging materials such as clear PVC, polyester and PET. "We also see some strengthening in demand for some grades of high-density polyethylene as well as some higher strength materials such as high impact polystyrene. Some specific applications requiring those materials seem to be showing early signs of a comeback but there is a long way to go yet."

Nicos' toll processing for large manufacturers has not dropped off as dramatically as the buy-sell side of its business, but it has fallen off simply because manufacturers are producing less. "Overall, since last fall our business has fallen off approximately 15 percent in volume, but of course from a revenue standpoint it's more because on the buy-sell side we deal significantly with commodities," said Cronin.

See PLASTICS, Page 7



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# RecycleMania results for 2009 are released

Every spring, students across the country become RecycleManiacs, competing for national supremacy to determine which school can reduce, reuse and recycle the most campus waste.

RecycleMania wrapped up its 2009 college recycling contest in late March, with over 69.4 million pounds of recyclables and organics recovered from 510 colleges and universities across the country.

"RecycleMania's success comes from its ability to use competitive spirit and campus rivalries to motivate students who are less likely to respond to 'save the earth' kinds of messages," according to Stacy Wheeler, professor at the University of North Florida and cofounder of the RecycleMania competition.

The spirit of friendly competition sparked huge environmental gains. The total amount of recyclables and organic materials recovered during the 2009 competition added up to 69.4 million pounds, which in turn prevented the release of 88,739 metric tons of carbon dioxide equivalent (MTCO2E). In real world terms, this reduction in greenhouse gases is equivalent to the annual emissions from 16,187 passenger cars; electricity use of 12,258 homes; or burning of 462 railcars' worth of coal.

Colleges and universities chose to participate in one of two divisions, either the Competition or Benchmark. The Competition Division houses the traditional competitive rankings based on standard tracking and reporting criteria. The Benchmark Division allows schools to unofficially compare themselves with others and to promote RecycleMania on campus without the formal reporting requirements of the competitive ranking.

Within each division, schools participate in any of eight categories, including the "Grand Champion," which measures recycling as a percentage of the total waste generation; the "Per Capita Classic," which measures the largest amount of combined recyclables per person; the "Waste Minimization" competition, which tracks the lowest amount of waste per person; and the "Gorilla" Prize, which acknowledges the schools with the highest total combined recycling weights. In addition to these main categories, schools also compete in targeted material categories on a per capita basis.

The "Grand Champion" top three finalists, determined by the percentage of overall waste that is recycled over ten weeks, are:

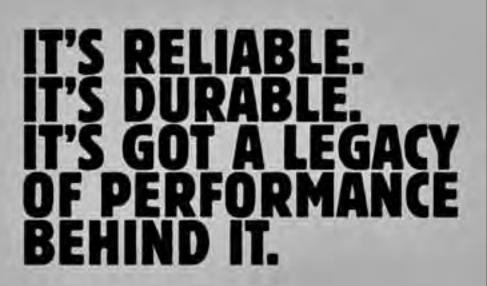
•California State University, San Marcos (78.09 percent) – San Marcos, California.

•Franklin W. Olin College of Engineering (64.22 percent) – Needham, Massachusetts.

•New Mexico State University (64.02 percent) – Las Cruces, New Mexico.

To see the "Per Capita Classic" finalists and a complete list of all the winners, view this article on www.AmericanRecycler.com.





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# Rhino Recycle Program tackles propane tank disposal issues

Blue Rhino has introduced the Rhino Recycle Program - a solution for the unwanted gas grill propane tanks that are dropped off at recycle and disposal centers across the country. It is an economical and ecologically-friendly program designed to recycle and refurbish the tanks.

The program alleviates the need for collection sites to dispose of gas grill propane tanks on their own. From coast to coast, the program has picked up thousands of tanks for processing.

Rhino Recycle uses a restoration process that prevents tanks from being stored at landfills and recycle centers and refurbishes them, extending the useful product life.

This process keeps waste down and minimizes the safety hazards associated with storage at individual sites.

# EPA budget

■Continued from Page 1

1.000 clean water and 700 drinking water infrastructure projects, support green infrastructure and create thousands of technical and construction jobs. Funding will also be available to help communities repair and upgrade the aging network of drinking water and wastewater pipes that are overwhelmed and breaking down.

The budget includes a \$475 million multi-agency Great Lakes Initiative to protect and clean up the largest fresh water lakes in the world through restoration efforts, invasive species control, non-point source pollution mitigation and critical habitats protection. The budget also includes funding for crucial efforts to protect, maintain, and restore the Chesapeake Bay and Anacostia River, Puget Sound, San Francisco Bay, Lake Champlain and other large waterbodies.

Addressing climate change: To address the growing threat of climate change, EPA will make key investments in the greenhouse gas (GHG) emissions inventory. That involves new analytical tools, upgraded testing capabilities, and

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Many facilities and landfills face a similar situation. Often, people drop off empty, unwanted propane tanks because they don't know where else to take them. Recycle and waste disposal organizations do not always have appropriate space for storage discarded propane tanks, and they may face a per-tank cost to contract companies to pick them up and dispose of them. Rhino Recycle only requires a small per-tank fee in some cases, but in most cases it is free, which can result in significant savings. Rhino Recycle's minimum pick up is 36 propane tanks.

Some communities have mobile household hazardous waste drop-off events where contractors collect items. In 2009, Rhino Recycle will be at select events nationwide to accept and appropriately handle gas grill propane tanks.

coordination with other agencies on research and green initiatives.

EPA's \$17 million GHG registry investment will include data reporting and implementation efforts, data management systems, guidance and materials for the regulated community and source measurement technologies. The budget also includes an additional \$2 million for EPA to continue to reduce its own GHG emissions by 3 percent each year.

Managing resources efficiently: The budget reflects concerns of accountability. The President, the Congress, and most importantly, the people, demand that the federal government manage its resources responsibly. EPA will increase funding for the Inspector General's office to monitor public dollars entrusted to the agency.

Restoring communities: The EPA budget is investing in hazardous waste cleanups like Superfund and Brownfields programs that employ thousands of people across the country and restore properties for economic use.

\$1.3 billion will go to increase the number of hazardous waste sites ready for anticipated use and fund ongoing site cleanups. The budget proposes to restore the Superfund tax known as the "polluter pays" policy, which expired in 1995, to



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Blue Rhino has made the process of using the Rhino Recycle program easier with the development of a three-step process:

1. Collect and store - accept and safely store gas grill propane tanks that meet the Rhino Recycle Acceptance Guidelines. Minimum quantity of 36 is required to schedule a pick-up.

2. Schedule pick-up – Once the minimum requirement is reached, call 888-753-7159 to schedule a pick-up.

3. After the scheduled pick-up time, the tanks will be refurbished by shot-blasting, repainting and retrofitting outdated valves and components, extending the useful life of the tank. If the tank does not meet safety and quality standards, Blue Rhino will reclaim any unused propane and recycle the steel.

fund future clean-up efforts. Beginning in 2011, the Superfund tax is estimated to generate \$1 billion of revenue a year, rising to \$2 billion a year by 2019.

The budget proposes \$175 million for the Brownfields program, which will provide additional assessment, clean-up, and job-training grants. The budget also contains \$128 million for the Leaking Underground Storage Tank and Underground Storage Tank programs and \$18 million for the Oil Spill Response program.

Managing chemical risks: A total of \$55 million will go to an enhanced toxics program to screen, assess and reduce chemical risks. Funding will be invested in monitoring air toxics at schools and to provide technical assistance and coordination with states and local communities. Other major investments include funding for continued efforts to reduce lead exposure and grants to states, tribes, and other partners to promote worker safety, protection of water sources and endangered species from pesticide exposure.

Reinforcing scientific integrity: This budget supports rigorous, peerreviewed scientific analyses with \$842 million for science and technology. The budget also proposes additional funding for water sustainability to assess, develop and compile scientifically rigorous tools and models that will help advance the deployment of green water infrastructure.

Protecting communities: Approximately \$600 million will go to the EPA's Enforcement and Compliance Assurance program. It includes an increase of nearly 30 additional enforcement staff and will enhance efforts to integrate environmental justice considerations in EPA programs and policies. It will also aid in the work to fulfill environmental requirements with respect to other federal agencies' recovery act projects.

Strengthening partnerships: Jackson emphasized that states, localities and tribes are the front line in many environmental programs, as they implement major portions of almost all EPA programs. The budget includes \$1.1 billion for categorical grants to states and tribes.



877-777-0737 Fax 419-931-0740

**Publisher and Editor** 

**ESTHER G. FOURNIER** esther@AmericanRecycler.com news@AmericanRecycler.com

**Editorial Focus Section Editor, Production and Layout** 

DAVID FOURNIER, JR. david@AmericanRecycler.com

**Production and Layout** MARY E. HILL

mary@AmericanRecycler.com

**Marketing Representatives** MARY M. COX maryc@AmericanRecycler.com MARY E. HILL mary@AmericanRecycler.com

#### **Circulation Manager**

**DONNA L. MCMANUS** donna@AmericanRecycler.com

#### Writers and Contributors

MIKE BRESLIN mbreslin@AmericanRecycler.com **BRIAN R. HOOK** bhook@AmericanRecycler.com **DONNA CURRIE** dcurrie@AmericanRecycler.com DAVID FOURNIER, JR. david@AmericanRecycler.com MARK HENRICKS mhenricks@AmericanRecycler.com **IRWIN RAPOPORT** irapoport@AmericanRecycler.com **RON STURGEON** rons@rdsinvestments.com

#### **Production Offices**

900 W South Boundary, Bldg 6 Perrysburg, OH 43551-5235 877-777-0737 fax 419-931-0740 www.AmericanRecycler.com

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# Carpet recyclers granted awards

The Carpet America Recovery Effort (CARE) honored four innovators from the growing world of post-consumer carpet recycling at the organization's seventh Annual Conference held in Lansdowne, Virginia.

The recycling group announced winners of the EPA/CARE Innovations in Recycling award and the CARE Recycler of the Year and Person of the Year awards.

Established two years ago, the EPA/CARE award recognizes innovation in a product containing post-consumer carpet content, or a process that diverts substantial amounts of post-consumer carpet from landfills. This year the award is shared by Shaw Industries' Evergreen Nylon Recycling facility and Los Angeles Fiber Company and its president Ronald Greitzer.

From the time Shaw began operating the Evergreen plant in 2007, the company has recycled more than 220 million pounds of post-consumer Nylon 6 carpet and more than 36 million pounds of postconsumer carpet filler. In addition, significant fossil fuel usage was avoided through the plant's waste-to-energy processing.

Ron Greitzer has over a decade of involvement in carpet recycling. Since 2000, his Los Angeles Fiber Company has recycled more than 464 million pounds of post-consumer carpet, amounting to more than 40 percent of the accumulated poundage of recycled carpet reported by CARE since it began collecting data in 2002. Without Greitzer's efforts, CARE would not have reached their 2007 milestone of one billion pounds of post-consumer carpet recovered. Greitzer's Reliance Carpet Cushion products are made entirely of post-consumer carpet fiber, and represent a major potential market for post-consumer fiber.

As the organization's Recycler of the Year, CARE recognized Mohawk Industries for its GreenWorks Post- Consumer Recycling Center, which converts postconsumer carpet into engineered resins that can be used in a broad range of valuable post-consumer products. Mohawk describes its GreenWorks system as a "total recycling solution in which NO carpet component is either discarded to landfills or is sent to waste incineration." In 2008, the GreenWorks Center, located in Chatsworth, Georgia, collected 15 million pounds of post- consumer carpet for processing into thermoplastic nylons and other materials. Most engineered resin sales were with Nylon 6,6, but Mohawk also developed automotive, furniture, and housewares applications, among others.

For his leadership on the CARE Board, serving as chairman of various CARE committees, Brendan McSheehy, Jr., was named CARE Person of the Year. As director of research and development for Universal Fiber Systems, McSheehy has been actively involved in carpet fiber research and recycling since 1993. A patent-holder for a method of cleaning and separating post-consumer carpet face yarn, McSheehy was instrumental in the development of his company's ReFresh Fiber, which contains post-consumer content from recycled nylon Type 6,6 carpet.

# New Jersey companies ordered to halt improper handling of bulbs

In an effort to stop and prevent the release of hazardous waste, the United States Environmental Protection Agency (EPA) has ordered two New Jersey companies to take immediate action to ensure the safe handling of hazardous waste at a facility in Lakewood, New Jersey. Through an administrative order, EPA is requiring Supreme Asset Management and Recovery, and Preferred Enterprises to halt the unsafe processing, storage and transfer of fluorescent light bulbs and batteries classified as hazardous waste, both of which contain toxic substances including mercury and lead.

Preferred Enterprises owns the facility at 1950 Rutgers University Boulevard in Lakewood where the improper activities took place, and Supreme Asset Management and Recovery operates it. Supreme Computer and Electronic Recyclers, Inc., which merged in 2008 with Ecoglass Recycling, Inc. to become Supreme Asset Management and Recovery, Inc., acquired a solid waste facility permit from the New Jersey Department of Environmental Protection (NJDEP). From 2006 through 2008, Supreme accepted drums of spent

fluorescent bulbs, and inspections of the facility found evidence of improper handling of crushed fluorescent bulbs, a hazardous waste. Supreme was permitted to receive and store intact spent fluorescent bulbs, but not crushed bulbs. Fluorescent bulbs release mercury when crushed.

In April 2008, NJDEP issued Supreme a notice of violation for accepting the crushed bulbs and for failing to prevent the release of mercury. NJDEP officials identified several instances during which mercury may have been released into the environment at the facility. EPA inspected the facility in October 2008 and found that many bulbs had enough mercury to be classified as hazardous waste.

In early 2008, Supreme shipped intact bulbs to a facility in Richmond, Virginia to be crushed there. In May 2008, the Virginia Department of Labor and Industry cited the company for failing to protect its employees from exposure to mercury.

During its October 2008 inspection, EPA also found that the companies were storing 40 pallets of spent lead acid batteries, some of which were badly corroded and leaking, and three containers of spent lithium batteries outdoors without proper cover. The problem persisted, and NJDEP issued Supreme a violation notice after a January 2009 inspection. In February 2009, NJDEP took steps to revoke Supreme's permit to operate a solid waste recycling business.

As a result of EPA's order, issued under the federal Resource Conservation and Recovery Act, Supreme must stop accepting crushed fluorescent bulbs that contain mercury and move all crushed bulbs to a permitted facility using a carrier licensed by NJDEP. The company must also inventory intact fluorescent bulbs, ensure they are properly stored and identify an acceptable facility that can process or recycle them. Supreme must also store leaking spent lead acid batteries in a manner that will prevent further leaks, clean up previous leaks, and manage lithium batteries in a manner that will prevent fires. Supreme is required to report its progress to EPA.

The companies met with EPA and, while not accepting the accuracy of all of EPA's findings, they have agreed to carry out the terms of the order.

# Oregon's electronics program popular

The Oregon E-Cycles Program, which provides free recycling of computers, monitors and televisions throughout the state, is proving popular with Oregonians.

First-quarter collection and recycling totals show that the program brought in 4.94 million pounds of electronic waste, said E-Cycles project lead Kathy Kiwala of DEQ's Solid Waste Program.

The 4.94 million pound figure is ahead of projected program goals. Oregon E-Cycles' original projection for minimum total returns for 2009 is 12.2 million pounds. For materials collected in the first quarter, televisions accounted for 55.7 percent of total pounds recycled. Monitors accounted for 33.3 percent, and computers accounted for the remaining 11 percent.

#### ISRI grants Design for Recycling Award

The Institute of Scrap Recycling Industries, Inc. (ISRI) honored the furniture manufacturer Herman Miller with its 2009 Design for Recycling<sup>®</sup> Award, at ceremonies held during ISRI's 2009 Convention and Exposition.

ISRI established the Design for Recycling award, to honor a program, company or individual whose product or program design has incorporated one or more of the following:

•A reduction in the number of different recyclable materials.

•A reduction or elimination of hazardous constituents.

•An increased yield of recyclables.

•An improvement in the safety of recycling.

•A design that allows for easy disassembly for recycling.

In addition to recycling, 8,938 units of televisions, computers or monitors were diverted for reuse, Kiwala added.

Electronics manufacturers finance Oregon E-Cycles, which was launched on January 1, 2009. Many manufacturers support the DEQ-administered state contractor collection and recycling program. Three other manufacturer groups operate their own collection and recycling programs, but all of the programs operate under the Oregon E-Cycles umbrella.



# EPA announces next steps on hazardous waste rules

EPA announced the next steps on two hazardous waste rules to respond to concerns raised by stakeholders: the Definition of Solid Waste rule and the Emission Comparable Fuels rule.

EPA is planning to hold a public meeting to discuss possible revisions to the Definition of Solid Waste (DSW) rule in response to an administrative petition asking the agency to reconsider and repeal the rule. The rule became effective on December 29, 2008. The meeting is planned for the end of June, and a Federal Register notice with the details of the meeting were published in May.

The DSW rule modified the regulations for recycling hazardous secondary materials to encourage the recycling of certain materials to help conserve resources. The rule includes conditions designed to ensure that the recycling of the materials is protective of human health and the environment. The rule also takes into account a series of opinions in the United States Court of Appeals for the D.C. Circuit on the meaning of the term "discard," which forms the basis of the definition of solid waste.

Since publication of the DSW rule, the Sierra Club has raised concerns about the effectiveness and protectiveness of the rule and has requested EPA stay the rule in an administrative petition. In addition, the Sierra Club and the American Petroleum Institute have filed judicial petitions for review in the U.S. Court of Appeals for the D.C. Circuit. Various industry groups have also filed letters opposing the Sierra Club's administrative petition.

EPA expects that stakeholders' input at the public meeting will assist the agency in deciding whether to make revisions to the rule and how such revisions would further ensure that the rule appropriately and safely encourages resource conservation for those hazardous secondary materials that are conditionally excluded. The Federal Register notice announcing the meeting will raise specific questions for consideration, particularly related to reclamation that is not under the control of the generator. Any revisions to the rule would be made through the full public rulemaking process.

EPA is also planning to propose a rule to withdraw the Emission Comparable Fuels (ECF) rule, which became effective on January 20, 2009. The proposal will present the agency's concerns and request comments from the public after publication in the Federal Register, planned for November 2009. After evaluating the public comments, the EPA will make a decision on whether to repeal the exclusion. The ECF rule removed regulatory costs by reclassifying certain manufacturing byproducts as non-wastes. ECF is fuel that is produced from a hazardous waste, but which generates emissions when burned in an industrial boiler that are comparable to emissions from burning fuel oil. The materials must also be stored under an elaborate set of requirements.

The final rule has been criticized for allowing hazardous waste to evade the hazardous waste regulatory system, and also for being difficult to administer. Industry members have also criticized it because of the detailed and prescriptive conditions for reclassification, which they believe will limit the rule's use.

> For additional information, view this article on www.AmericanRecycler.com.

# Staples given environmental leadership award by NRC

The National Recycling Coalition (NRC) announced that Staples is the recipient of the NRC's eleventh annual Recycling Works Award for its broad-reaching efforts to promote recycling and waste reduction among its customers and throughout its operations.

The award, presented at NRC's annual gala, recognized Staples' leadership in providing easy-to-use product recovery programs and eco-friendly product choices through its EcoEasy<sup>™</sup> initiative making it easier for its customers to become effective environmental stewards.

Is Your Dumpster Full of Foam Packaging?

"Staples is the first national retailer to offer an every-day in-store technology recycling program. In 2008, Staples collected nearly five million pounds of technology waste for responsible recycling through its retail technology recycling program. The company is also one of the world's leading ink recyclers. By accepting any brand or type of cartridge and allowing customers to earn \$3 back in Staples Rewards for each cartridge recycled, Staples is on track to recycle 50 million cartridges in 2009."

## ClearStream ClearTainers awarded to increase recycling

The New York State Association for Reduction, Reuse, and Recycling, Inc. (NYSAR3), as an administrator of a New York State Department of Environmental Conservation (DEC) Environmental Benefit Fund, has invested over \$40,000 to boost beverage container collection and public space recycling throughout the State of New York. The grant program will provide at least one thousand ClearStreams to qualifying youth and community organizations located in nine DEC regions.

According to Jeff Cooper, NYSAR3 regional board member, ClearStream was selected as the approved container

The New York State Association for uction, Reuse, and Recycling, Inc. SAR3), as an administrator of a Vork State Department of Environtal Benefit Fund, has invested over 000 to boost beverage container col-

NYSAR3 grant applications had to be postmarked by April 15, 2009. Names of the sixty-plus public space recycling grant recipients were announced as part of NYSAR3's recognition of Earth Day.

For a complete list of grant awardees, view this article on www.AmericanRecycler.com.

# Suntech to develop solar module recycling program

Suntech Power Holdings Co., Ltd. announced that it has joined the PV Cycle Association which is engaged in establishing a voluntary take-back and recycling program for end-of-life PV modules.

"With over 1.1GW of Suntech solar products shipped worldwide since our inception, we believe it is essential that Suntech take a proactive role in developing effective recycling programs. We are looking forward to collaborating with the PV CYCLE association and further developing our internal module recycling initiative," added Jerry Stokes, Suntech's vice president of strategy and business development.

PV modules are designed to generate clean, renewable energy for over 25 years. With the first significant installations in the early 1990s, full-scale endof-life recycling is still another 10 to 15 years away. Nevertheless, the PV CYCLE association is already developing plans to develop a recycling program that minimizes waste and maximizes reuse of valuable resources such as glass, silicon and aluminum.

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#### **PLASTICS**

# PAPER Total printing-writing paper shipments down in March

According to the American Forest & Paper Association's March 2009 Printing-Writing Paper Report, total printing-writing paper shipments decreased 21.9 percent in March compared to March 2008. For the year to date, shipments were down 24.0 percent. United States purchases (shipments + imports – exports) of printing-writing papers dropped 22.8 percent in March versus year-ago and declined 24.1 percent for the year to date. Total printingwriting paper inventory levels decreased 37,100 tons from February.

Contraction of uncoated free sheet (UFS) for shipments slowed for a second consecutive month. UFS shipments were down 8.7 percent compared to March 2008, to 850,200 tons. In January, UFS shipments were down 19.6 percent, followed by a decline of 19.3 percent in February. Because of the earlier strong declines, for the year to date UFS shipments were 16.0 percent below last year. United States purchases of UFS were also down, declining 7.9 percent when compared to March 2008, as imports again exceeded exports. UFS inventories decreased 2.9 percent compared to last month, a decline of 32,300 tons.

Coated free sheet (CFS) shipments post double-digit decline for sixth consecutive month. CFS shipments dropped by 31.7 percent compared to March 2008, to 286,200 tons. For the year to date, shipments of CFS were down 27.8 percent. United States purchases of CFS decreased 31.1 percent compared to last March. CFS inventories decreased 1.8 percent compared to February, a decline of 11,500 tons.

Coated mechanical (CM) shipments again decreased the most in March. CM shipments fell 39.5 percent when compared to March 2008, settling in at 248,100 tons. Year to date shipments of CM were down 37.0 percent compared to last year. United States purchases of CM were down 39.8 percent compared to March 2008, and for the year to date were down 35.4 percent. CM inventories increased 3.2 percent, or 9,500 tons, from last month.

Uncoated mechanical (UM) shipments decline for a seventh consecutive month after reaching an all-time high in July 2008. UM shipments decreased 27.5 percent when compared to March 2008, to 135,200 tons, and for the year to date were down 30.6 percent. After hitting an all time high in July 2008, UM shipments increased compared to the prior year just one more time in August before the current pattern of decline began. United States purchases of UM were down 26.4 percent when compared to March 2008 and were down 26.0 percent for the year to date.UM inventories increased 13.4 percent, or 13,200 tons, from February.

## Fresh & Easy diverts 400,000 pounds of plastic from landfill

Fresh & Easy Neighborhood Market has diverted more than 400,000 pounds of plastic display trays from landfills through the use of a proprietary ultra violet light sanitizing machine. With this technology, the company has reused more than 2,000,000 plastic display trays, material that may otherwise have been discarded.

UV Doctor, a company based in Las Vegas specializing in UV light technologies, engineered and built this custom machine for Fresh & Easy to sanitize the packaging used to display products in stores. By using UV light technology to safely disinfect and sanitize its plastic display trays, Fresh & Easy is able to significantly reduce its carbon emissions, petroleum use and landfill waste.

Resource Management Group (RMG), a San Diego-based waste management and recycling company, works on-site at Fresh & Easy's Riverside distribution center to recycle and reuse tons of material collected at stores. RMG sanitizes about 60 plastic display trays per minute using the UV machine.

Life is measured in time: BC and AC. That, to me, means "before children" and "after children."

# Ball closes PET bottle plants

Ball Corporation announced that it will permanently cease manufacturing operations at polyethylene terephthalate (PET) bottle plants in Baldwinsville, New York, and Watertown, Wisconsin and supply customers of those plants from larger Ball facilities.

"Baldwinsville and Watertown are the smallest PET bottle manufacturing plants in our system," said John A. Hayes, executive vice president and chief operating officer. "With the industry slowdown of demand for monolayer PET containers, it is important that we continue to focus on ensuring our cost base is competitive."

The Baldwinsville plant opened in 1996 and operates seven production lines capable of making approximately 1 billion bottles annually. It employs 113. The plant is scheduled to cease manufacturing by July 7.

The Watertown plant operates four production lines with an annual capacity of approximately 250 million bottles and employs 52. It is scheduled to cease manufacturing by June 7.

As a result, an after-tax charge of approximately \$14 million will be recorded in the company's second quarter results. Cost savings associated with these actions are expected to be approximately \$12 million annually beginning in 2010.

# **Plastics**

Continued from Page 2

Cronin is optimistic about recovery. His company just launched a new division, Innovative Sustainability Solutions, that specializes in sustainability programs, cradle-to-cradle recycling, product life cycle management and landfill avoidance strategies. "Increasingly, larger companies are beginning to focus on sustainability. I do see our ability to generate new opportunities and revenues based on the focus of helping companies reach their sustainability goals," said Cronin.

Today, plastic recyclers are working off inventories. Export demand is building slowly. Domestic demand is down, but seems to have stabilized, especially for recycled plastics that feed into containers and packaging found in grocery stores. No doubt consumers have moderated spending, but the budget category least likely to be cut is food and beverage, which relies heavily on plastic packaging. Recycled plastics that had been going into construction materials and automobile manufacturing have been badly affected. New technology developments, however, are working towards better recovery of mixed streams of polymers, such as from scrapped vehicles. Plastic recyclers are generalists and can readily adapt to changing market conditions. Wherever a market is, they follow it.

Despite current market conditions, the future for recycled plastics is promising. Recycled plastics are purchased because they do a better job for less money than other materials. Even though the raw material stream is diverse and challenging, recyclers are delivering higher quality products in greater volumes across a broader range of polymers. The growth in electronic recycling, for instance is delivering larger, more consistent streams of acrylonitrile butadiene styrene (ABS) from computer and electronic equipment housings. Electronic equipment manufacturers are leading the way by identifying components with stamps on injection molding tools that expedites separation and results in more material being reclaimed.

Products incorporating recycled plastics and identified and promoted that way, also have market appeal in a greening economy as consumers become more aware of the fact that polymers are infinitely recyclable and the last place they should go is into landfills. For example, park benches made of recycled plastics demonstrate a concern for the environment, but also delivers a more durable product with better value due to reduced maintenance.

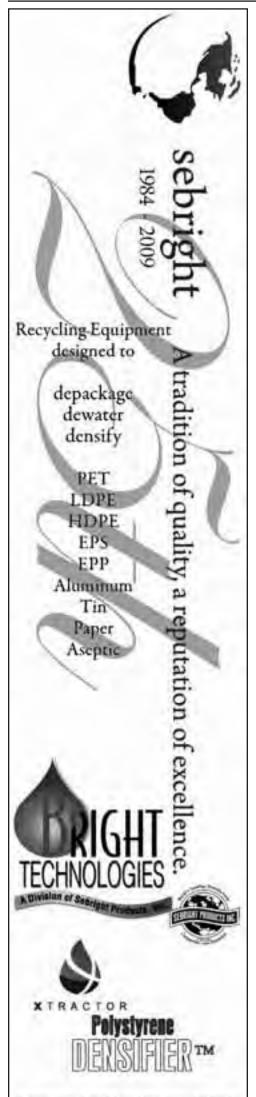
"What is fascinating about this market collapse is that unlike financial institutions, recyclers did not go out of business. PET and high-density bottle recyclers are survivors. These are folks that are used to difficult moments and last fall was a really difficult moment – not for the weak of heart," said Cornell.

"I'm cautiously optimistic as long as things keep going the way they are going. We had a pretty good first quarter after a terrible January and we're having a pretty good second quarter," said Anderson.

It may not the best of times for recyclers, but it's not the worst of times either.

■More PLASTIC and PAPER NEWS is available in this issue's Focus Section, Page B1.





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# ALTERNATIVE ENERGY Pending bill on renewable energy omits mention of woody biomass

Clearing biomass from forests will keep them healthy

Despite pending federal legislation that promotes renewable, clean energy and creates new jobs, people in rural areas are being denied the promise of a green economy, according to the American Loggers Council (ALC).

Unemployed loggers all over the country could have a future in sustainably gathering and selling tons of cleanburning woody biomass to power plants were it not for the fine print in The American Clean Energy and Security Act of 2009 that's now under consideration in the House of Representatives.

The harvesting of woody biomass involves collecting stems and wood waste from the forest or stands of beetlekilled wood – but the Act excludes 60 to 70 percent of biomass sources in the United States because the biomass lies in federal and certain private forests.

"Woody biomass is not the cutting down of old-growth trees," said ALC executive vice president Danny Dructor. "A sustainable biomass industry will keep our forests healthy and provide clean energy and green jobs."

While it commends Congress' commitment to renewable energy, the ALC is committed to educating Congress about the true benefits of woody biomass harvesting: Reviving small-town economies;
Creating a viable, proven source of renewable energy;

•Reducing the risk of catastrophic forest fires by removing dead and dying trees and the waste that provides fires much of their fuel;

•Fighting insects that destroy forests by thinning dense stands and removing the waste in which pests breed.

Throughout the United States, the closing of mills has devastated smalltown economies that once relied on logging. In Oregon, 30 percent of loggers are currently unemployed and many rural communities reliant on forestry now suffer from almost 20 percent unemployment – more than twice the national average.

"Here in Minnesota, counting loggers and spin-off jobs from mills, unemployment in our industry's probably 60 percent," said logger Jerry Birchem, of Virginia, Minnesota.

But Birchem has found his own solution through harvesting woody biomass. Not only does he own a wood pellet plant, providing a clean energy solution for his area, but he also gathers and sells woody biomass to a power plant. "I saw some of the economic trends for logging a few years ago," Birchem said. "And if it weren't for biomass, I'd only have half the work I have now. The popular position used to be that there should be no harvesting of anything, and it seemed like they'd rather have forest fires, but I don't think that's the mainstream view anymore."

Like Birchem, third-generation logger Scott Melcher of Sweet Home, Oregon, saw an opportunity to diversify his business when he decided to collaborate with another local businessman to collect and haul the biomass to a utilization center instead of piling it up trailside and burning it.

So logging does have a future and there's a big economic stimulus waiting to be had for rural economies and everyone else – in creating renewable energy through woody biomass.

"One thing that's important for people to understand is that forests grow; that's what they do," he said. "There will always be biomass, and collection of biomass could keep loggers going forever."

To learn more about woody biomass, visit this online resource: www.stateforesters.org

### Duke Energy invests \$50 million to build 400 mini solar power plants

Duke Energy will build between 100 and 400 electricity-generating mini solar power plants throughout North Carolina over the next two years in one of the first large-scale initiatives of its kind in the United States according to their CEO, Jim Rogers.

"Solar and wind are both going to be key parts of our strategy going for-



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800-527-7848 www.windsorbarrel.com ward," Rogers told reporters following the company's annual meeting.

The North Carolina Utilities Commission issued a decision allowing Duke Energy to proceed with its \$50 million proposal to install solar panels on the roofs and grounds of homes, schools, office buildings, shopping malls, warehouses and industrial plants, starting later this year.

Collectively, the solar sites will generate enough electricity to power 1,300 homes.

The electricity will flow directly from the solar sites to the electrical grid that serves all customers.

Duke Energy's solar initiative will be among the nation's first and largest demonstrations of distributed generation, in which electricity is produced at numerous micro generating sites rather than at a large, centralized, traditional power plant.

Duke Energy will own and maintain the solar panels during their expected 25-year lifespan. The company also will own the electricity generated.

It will pay a rental fee to property owners who host the panels for use of their roofs or land, based on the size of the installation and amount of electricity generated at any given site.

#### KL Energy Corp. expands into Brazil

KL Energy Corp. has engaged in an exclusive cooperation agreement with add blue Ltda. KL Energy and add blue are now optimizing KL Energy's cellulosic ethanol technology for the use of sugarcane bagasse and straw feedstock. It has planned to build Brazil's cellulosic ethanol plant using KL's enzymatic process and completely integrated into a conventional mill with startup in 2010.

Brazil is the world's second largest producer of ethanol and the domestic market is poised to experience a massive increase in demand as flex-fuel cars begin to dominate the national fleet. Presently, more than 360 mills are operating in Brazil, all of them generating huge amounts of sugarcane bagasse, an ideal feedstock for cellulosic ethanol production.

Further, add blue will offer ethanol plant process optimization services in cooperation with KL. Add blue will be the first company in Brazil's sugarcane industry to apply the best process simulation tool in the business, Aspen Plus. Supported by KL Energy's unmatched expertise in process optimization, add blue will offer to mill owners a unique opportunity to increase capacities, yields and profitability. Add blue is in the process of successfully concluding its first full fledged process optimization project at a sugarcane mill in the State of São Paulo.

# **ALTERNATIVE ENERGY**

# University completes gasto-energy landfill project

The University of New Hampshire's (UNH) EcoLine, a landfill gas-to-energy project that uses purified methane gas from a nearby landfill to power the campus, is complete, university officials announced.

The five million square-foot campus will receive up to 85 percent of its electricity and heat from purified natural gas, making UNH the first university in the nation to use landfill gas as its primary fuel source.

"This massive project, more than four years in the making, will reduce our dependence on fossil fuels and stabilize our fuel source and costs," said UNH president Mark W. Huddleston.

EcoLine is a partnership with Waste Management's Turnkey Recycling and Environmental Enterprise (TREE) in Rochester, New Hampshire where the naturally occurring by-product of landfill decomposition is collected via a state-of-the-art collection system consisting of more than 300 extraction wells and miles of collection pipes.

After the gas is purified and compressed at a new UNH processing plant at TREE, it travels through a 12.7-milepipeline from the landfill to UNH's cogeneration plant, where it will replace commercial natural gas as the primary fuel source. In operation since 2006, UNH's cogeneration plant captures waste heat normally lost during the production of electricity and uses this energy to heat campus buildings.

Total cost of the project, which included construction of the pipeline and the processing plant at TREE, is \$49 million. UNH will sell the renewable energy certificates generated by using landfill gas to help finance the overall cost of the project and to invest in additional energy efficiency projects on campus. In addition, UNH will sell power in excess of campus needs back to the electric grid.

# **Mascoma declares** biofuel breakthrough

that the company has made major research advances in consolidated bioprocessing, or CBP, a low-cost processing strategy for production of biofuels from cellulosic biomass. CBP avoids the need for the costly production of cellulase enzymes by using engineered microorganisms that produce cellulases and ethanol at high yield in a single step.

"This is a true breakthrough that takes us much, much closer to billions of gallons of low cost cellulosic biofuels," said Michigan State University's Dr. Bruce Dale. "Many had thought that CBP was years or even decades away, but the future just arrived. Mascoma has permanently changed the biofuels landscape from here on."

In a recent Forbes article, biofuels expert Helena Chum of the National Renewable Energy Laboratory in Golden, Colorado, commented on CBP, saying "This is the golden dream. All of the processes in one super-organism. That would be the lowest cost possible." A prominent DOE/USDA research agenda states that "CBP is widely considered to be the ultimate low-cost configuration for cellulose hydrolysis and fermentation."

Multiple research advances presented by Mascoma chief technology officer Dr. Mike Ladisch at the Symposium on Biotechnology for Fuels and Chemicals in San Francisco provide proof of concept for CBP. These include advances with both bacteria that grow at high temperatures, called thermophiles, and recombinant cellulolytic yeasts such as:

#### **Thermophilic Bacteria**

•Production of nearly 6 percent wt/vol ethanol by an engineered thermophilie, an increase of 60 percent over what was reported just a year ago;

•The first report of targeted metabolic engineering of a cellulose-fermenting thermophile, Clostridium thermocellum, leading to a reduced production of unwanted organic acid byproducts; and

•Selected strains of C. thermocellum that can rapidly consume cellulose with high conversion and no added cellulase,

Mascoma Corporation announced and grow on cellulose in the presence of commercial levels of ethanol. **Recombinant, Cellulolytic Yeast** 

•3,000-fold increase in cellulase expression;

•A significant 2.5-fold reduction in the added cellulase required for conversion of pretreated hardwood to ethanol; and

•Complete elimination of added cellulase for conversion of waste paper sludge to ethanol.

In February 2009, Mascoma's pilot facility in Rome, New York began producing cellulosic ethanol. The demonstration facility has the flexibility to run on numerous biomass feedstocks including wood chips, tall grasses, corn stover (residual corn stalks) and sugar cane bagasse. The facility will provide process performance engineering data sufficient to support construction of 1/10th scale and commercial scale biorefineries in Kinross, Michigan, with support from the Department of Energy and State of Michigan.



# **MaxWest Environmental** opens gasification facility

An innovative MaxWest gasification system, first approved by the City of Sanford, Florida in 2008, began operating on May 21 at Sanford's South Water Resource Center. The occasion also marks the official dedication by the City of its new Water Resource Center.

The MaxWest system will gasify Sanford's treated wastewater sludge to provide renewable "green" thermal energy to replace energy from natural gas for the City's sludge dryer. The energy in sludge is converted to heat safely and economically.

Because it is scalable, the gasification facility has sufficient capacity to meet Sanford's expected growth over coming decades and also to serve as a

disposal site for other nearby cities and private waste haulers.

This technology will provide Sanford with a long-term, green solution for sludge disposal while saving millions of dollars in natural gas fuel costs. Sanford's 20-year contract with MaxWest also provides long-term energy price stability. And, as the system grows, the opportunity to produce renewable green electricity is available.

The City of Sanford has grown considerably over the last 25 years as the Central Florida region has expanded. Sanford has decided to seek environmentally friendly solutions for its waste streams.

## City evaluates biofuels for boiler use

Renewable fuels provider New Generation Biofuels Holdings, Inc. announced that it has signed a contract with the city of Baltimore, Maryland, to provide its renewable biofuel in an evaluation program for boiler applications in the heart of Baltimore. This is the first time the city of Baltimore has evaluated a non fossil fuel in its industrial boilers.

In this program, New Generation Biofuels will sell the City biofuel for evaluation in various city municipal buildings.

The outcome of the evaluation is expected to further validate New Generation Biofuels' product as a renewable biofuel which uniquely offers NOx and SO2 reductions as compared to traditional distillate products and provide a platform for the city of Baltimore to expand its RFP definitions to include alternative technology biofuels such as New Generation Biofuels in future tender submissions.

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#### Plastic recycling maximized

The use and recycling of plastic products and packaging is a key issue for environmentalists and consumers, with the plastic water bottle being the 'poster boy' for the need to recycle and reduce the use of plastic.

American Recycler recently spoke with Steve Russell, managing director of the American Chemistry Council's (ACC) Plastics Division, to learn more about what is being done to maximize the recycling of plastic and promote the domestic recycling infrastructure.

Q&A

by Irwin Rapoport

Steve Russell

As a result of the current economic downturn, has the decrease in demand for plastic recyclables affected the collection of plastics from curbside and businesses?

**Russell:** Collection rates generally are driven by recycling behaviors rather than pricing. Collection success is often the result of well-managed programs and consumer education. For that reason, we believe that collection programs that have been successful to date will continue to weather the current economic downturn.

Should governments provide tax incentives and credits to manufacturers that use plastic recyclables as a feedstock in order to promote the collection and use of plastic? Are domestic manufacturers maximizing their use of plastic recyclables?

Russell: Interesting questions, but notwithstanding the current recession, the demand for recycled plastics in this country generally has outpaced supply. For the long term, we believe the best approaches are those that encourage increased collection through consumer education, and which promote consistent consumer education and collection practices across communities.

That is not to say that there aren't opportunities to take advantage of federal policies – the recent economic stimulus package includes upwards of \$3.2 billion in funding that could be used by communities to expand recycling infrastructure, including for plastics. This is a unique opportunity with a very short timeframe.

To what extent has the weight of plastic packaging been reduced? What additional gains can be attained and is industry motivated to reduce the amount of plastic being used?

Russell: Plastics have made huge strides in lightweighting and packaging reduction design. Since the 1970s, the weight of the average 1 liter beverage bottle and 1 gallon milk jug has declined by 30 percent.

But many companies are announcing even greater weight reductions. Poland Springs introduced the new "eco-shape bottle," which according to the company, "is made with 30 percent less plastic". Similar announcements have been made recently by Dasani, Aquafina, Pepsi and Coca Cola.

What is the ACC doing to help governments educate the various stakeholders to recycle and what can be done in terms of installing infrastructure to collect plastics in more public areas?

Russell: ACC is sponsoring some innovative pilot programs to help promote recycling and to keep valuable plastic material from being wasted, or worse, ending up as litter.

Last year, we placed more than 500 recycling bins and educational signage on highly trafficked beaches from Monterey to San Diego, and this year, we're expanding our efforts to include rest stops along coastal highways. American Recycler readers can learn more at www.2valuable2waste.com.

In addition, ACC has been promoting the recycling of plastic bags and film through a complete online toolkit available through the website, www.plasticbagrecycling.org, which offers signage suggestions for retail recycling programs and information for consumers on the many types of bags and wraps that can be recycled together.

In the area of non-bottle household containers, we're working to develop approaches and language to best reach consumers, and we are working with community programs to expand collection. We also support programs to help educate young people about the importance of recycling.

#### Are enough people aware of the connection between the manufacturing of plastic products and the use of natural gas as a feedstock to manufacture plastics?

Russell: We're glad you asked. I can't tell you how often we read about plastics and oil consumption, when in the United States, plastics are made primarily (70 percent) from domestic natural gas. That said, we all share an obligation to use energy responsibly, including by pitching in and recycling. When we recycle, the energy used to make a plastic product can be repurposed for new products or, where wasteto-energy facilities are in operation, used to heat homes.

It is important to recognize that through lightweighting automobiles, reducing packaging and efficient insulation, plastics actually save much more energy than they consume. In fact, studies show that the use of plastics reduces energy consumption by 26 percent and greenhouse gas emissions by 56 percent compared to alternative materials. We welcome the Obama administration's focus on energy efficiency and greenhouse gas emission reductions. Plastics play a critical role in meeting these goals.

#### What are some of the major barriers to plastics recycling today?

Russell: Two of the major themes to emerge from our recent recycling blog summit are the need for more consistent recycling approaches from community to community and the need to make it easier for consumers to know what to recycle.

Both of these barriers largely boil down to a need for more consistent infrastructure and collection and education practices. Studies have shown that consumer participation rates tend to increase when we make things simple. For example, offering single-stream recycling and accepting "all bottles" in collection programs as opposed to collecting by the number has led to measurable increases.

# **Application denied for** Tennessee coal ash use Use ruled out due to contaminants

The Pennsylvania Department of Environmental Protection (DEP) denied a request by the Tennessee Valley Authority to bring coal ash that spilled into the Emery River in Tennessee in December to Pennsylvania for reclamation of abandoned coal mines because the ash does not meet Pennsylvania's strict environmental standards, according to Environmental Protection Secretary John Hanger.

"Coal ash that has been previously disposed of and stored as a waste material, and spilled onto adjacent land and into a river is classified as residual waste and does not meet the certification requirements for beneficial use under Pennsylvania law," Hanger said. "This ash material was accidentally released from a disposal impoundment and mixed with unknown materials in the river water and bottom sediment. DEP only certifies coal ash for mine reclamation in Pennsylvania that is not contaminated with other materials and can meet our stringent chemical requirements."

In December 2008, the failure of an above-ground ash disposal impoundment at Harriman, Tennessee, spilled more than five million cubic yards of coal ash into the Emery River, adversely affecting the river and destroying homes and property.

The Environmental Protection Agency ordered the owner of the impoundment, the Tennessee Valley Authority, to dredge the ash material from the river as part of a cleanup plan. The authority applied to DEP in April to approve this ash source for use in the reclamation of mine lands in Pennsylvania.

DEP denied the request for certification because the material does not meet the definition of "coal ash" as defined in the Solid Waste Management Act and Pennsylvania's Residual Waste regulations.

DEP regulates the beneficial use of coal ash and other materials in the reclamation of abandoned mine lands. This is done under strict environmental standards created to protect public health, safety and the environment while helping to alleviate Pennsylvania's abandoned mine lands problem – generally acknowledged as the most extensive in the nation.

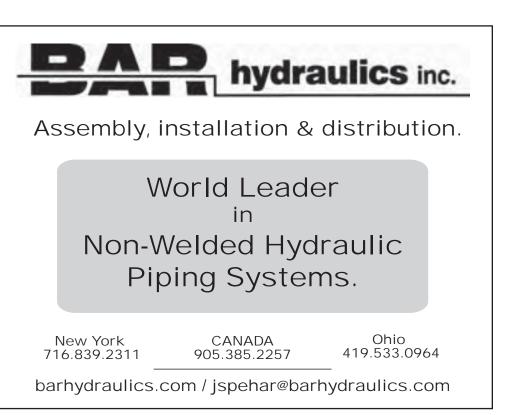


acres and spilled into streams and rivers

The ash certification process involves identification of the ash source, the type of coal ash generation process and the fuel sources utilized, and a determination of the physical and chemical properties of the ash. Coal ash and coal ash leachate are analyzed for 37 different chemical constituents and properties. The ash leachate must consistently contain concentration levels lower than the certification guideline limits in order to be approved for statewide beneficial use at mine sites.

More than 11 million tons of coal ash were used in the reclamation of coal mine sites in Pennsylvania in 2008. The majority of the ash was generated by burning waste coal, which resulted in removal of old waste piles that were contributing to stream pollution.

Pennsylvania has approximately 180,000 acres of abandoned mine lands dating back to when coal mining began in the state in the 1700s. More than two billion tons of waste coal sits in piles across the state and an estimated 4,600 miles of rivers and streams are degraded by mine drainage.





## **METALS**

# **ISRI** presents Lifetime Achievement Awards

The Institute of Scrap Recycling Industries, Inc. (ISRI) presented its 2009 Lifetime Achievement Award to the late Leonard Rifkin of OmniSource Corp. and Ben Sacco of Sierra International Machinery LLC during the association's annual convention.

Leonard Rifkin became acquainted with the scrap business through his father, a Russian immigrant who started collecting and selling rags, paper and scrap metal. In 1943 he bought his first scrap yard. Leonard Rifkin got his first taste of the business there — and didn't like it, but after earning a bachelor's degree in business and a two year stint in the Army, he tried again and never turned back.

He became president of Superior Iron & Metal Company in 1963 and fashioned his first joint venture. Over the years, he made more than 25 acquisitions. He welcomed his sons Daniel, Martin and Richard into the business and at the suggestion of his eldest son, he renamed the company OmniSource.

Today, the company handles 6.5 million tons of ferrous scrap and 700 million pounds of non-ferrous scrap annually.

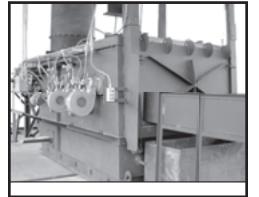
Leonard Rifkin passed away in 2008. The award was accepted on his behalf by his sons.

Ben Sacco was born in a small mountain town outside Salerno, Italy, in 1922 and immigrated to the United States in 1935. He and a partner established the Sierra Bag Company in 1947 and as the business expanded to buying copper, radiators, and batteries from farmers, Sierra Iron and Metal Company was formed in 1959.

A quarter century later on a visit to Italy, Sacco visited a scrap yard near Venice and discovered a unique machine - a mobile baler that could process twice as much in a day as its United States counterparts. He promptly bought one, and when another scrap dealer saw it, he wanted one, too.

So at an age when many are considering retirement, Sacco embarked on a new career as an equipment vendor. He introduced the combination shear/baler domestically, and soon Sierra International Machinery expanded into shear/baler/loggers, cranes, grapples, and more.

With six-plus decades in the scrap business, Ben Sacco still puts in sixday work weeks at Sierra.



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## Nucor posts 2009 first quarter results

Nucor Corporation announced a consolidated net loss of \$189.6 million, or \$0.60 per diluted share, for the first quarter of 2009. By comparison, Nucor earned \$409.8 million, or \$1.41 per diluted share, in the first quarter of 2008 and earned \$105.9 million, or \$0.34 per diluted share, in the fourth quarter of 2008.

Nucor's consolidated net sales decreased 47 percent to \$2.65 billion compared with \$4.97 billion in the first quarter of 2008 due to a 43 percent decrease in total tons shipped to outside customers and a 7 percent decrease in average sales price per ton. Consolidated net sales decreased 36 percent compared with \$4.15 billion in the fourth quarter of 2008 due to a 14 percent decrease in total tons shipped to outside customers and a 26 percent decrease in average sales price per ton.

The average scrap and scrap substitute cost per ton used remained flat at \$333 in the first quarters of 2008 and 2009 and decreased 23 percent from \$435 in the fourth quarter of 2008.

The steel mill utilization rate has decreased to approximately 45 percent in the first quarter from 92 percent in last year's first quarter and 48 percent in the fourth quarter. As a result of this decreased utilization, total energy costs increased approximately \$11 per ton from the first quarter of 2008 to the first quarter of 2009 and increased approximately \$5 per ton from the fourth quarter of 2008.

In February, Nucor's board declared a cash dividend of \$.35 per share payable on May 12, 2009 to stockholders of record on March 31, 2009.

This dividend is Nucor's one-hundred forty-fourth consecutive quarterly cash dividend, a record expected to continue.

Steel import applications drop

ment's most recent Steel Import Monitoring and Analysis (SIMA) data, the American Iron and Steel Institute (AISI) reported that steel import permit applications for the month of April totaled 1,170,000 net tons (NT).

This was a 22 percent decrease from both the 1,503,000 permit tons recorded in March 2009 and the March preliminary imports total of 1,505,000 NT. Import permit tonnage for finished steel in April was 1,046,000 NT, a decrease of 27 percent from the preliminary imports total of 1,437,000 NT in March and the lowest monthly import figure since February 1993.

In April 2009, the largest finished steel import permit applications for offshore countries were for China (93,000 NT), India (76,000 NT), Japan (73,000 NT), South Korea (68,000 NT) and Germany (51,000 NT). Finished imports from NAFTA countries were at the same import market share as in March (32 percent). However, finished imports from a large number of smaller foreign suppliers actually increased in April vs. the prior month. Finished steel import market share in April, despite the 27 percent monthly drop from March, is estimated at 24 percent, equal to 2008.

Finished steel import products that registered increases in April vs. the March preliminary include Electrolytic Galvanized Sheet and Strip (up 23 percent) and Heavy Structural Shapes (up 16 percent). Year-to-date, imports of Oil Country Tubular Goods (OCTG) remain significantly higher (up 48 percent).

#### **R** Scrap Metals 2 **MarketWatch** 3 5 Commodity Zone 2 Zone 5 Zone 1 Zone 3 Zone 4 #1 Bushelings per gross ton \$155.00 \$134.00 \$158.00 \$184.00 \$250.00 #1 Bundles per gross ton 150.00 132.00 155.00 184.00 202.00 205.00 140.00 160.00 170.00 202.00 Plate and Structural per gross ton

#1 & 2 Mixed Steel	per gross ton	180.00	132.00	150.00	162.00	181.00
Shredder Bundles (tin)	per gross ton	158.00	130.00	146.00	140.00	148.00
Crushed Auto Bodies	per gross ton	158.00	134.00	146.00	147.00	148.00
Steel Turnings	per pound	65.00	45.00	82.00	81.00	110.00
#1 Copper	per pound	2.07	1.81	2.09	1.98	2.00
#2 Copper	per pound	1.99	1.68	2.00	1.85	1.95
Aluminum Cans	per pound	.37	.35	.46	.45	.47
Auto Radiators	per pound	1.40	1.20	1.35	1.27	1.40
Aluminum Core Radiators	per pound	.37	.41	.40	.42	.39
Heater Cores	per pound	.83	.75	1.17	1.10	1.07
Stainless Steel	per pound	.49	.36	.49	.49	.52
All prices are expressed in USD. Printed as a reader service only.						

DISCLAIMER: American Recycler (AR) collects pricing and other information from experienced buyers, sellers and facilitators of scrap metal transactions throughout the industry. All figures are believed to be reliable and represent approximate pricing based on information obtained by AR (if applicable) prior to publication. Factors such as grades, quality, volumes and other considerations will invariably affect actual transaction prices. Figures shown may not be con-sistent with pricing for commodities associated with a futures market. While the objective is to provide credible information, there is always a chance for human error or unforeseen circumstances leading to error or omission. As such, AR is not responsible for the accuracy or completeness of the information provided, or for outcomes ansing from use of this information. American Recycler disclaims any liability to any person or entity for loss or damage resulting from errors or omissions, including those resulting from negligence of AR, its employees, agents or other representatives.

# Based on the Commerce Depart-

# METALS

# Steel imports decline

Based on preliminary Census Bureau data, the American Iron and Steel Institute (AISI) reported that the United States imported a total of 1,505,000 net tons (NT) of steel in March 2009, including 1,437,000 NT of finished steel (down 5 percent and 3 percent, respectively, vs. February final data). Total and finished steel imports on an annualized basis are down 32 percent and 22 percent, respectively, vs. 2008.

Finished steel import market share is an estimated 29 percent in March, and an estimated 31 percent for Q1 2009.

Key products with increases in March 2009 compared to February include Reinforcing Bars (up 155 percent), Mechanical Tubing (up 46 percent), Hot Dipped Galvanized Sheet & Strip (up 28 percent), Line Pipe (up 24 percent) and Standard Pipe (up 24 percent). For Q1 2009 vs. same period last year, OCTG imports (led by China) increased 79 percent.

In March, the largest volume of finished imports from offshore was from China (196,000 NT, down 28 percent from February). The March tonnage from China was 14 percent of all finished imports and, based on the March data. finished steel imports from China in 2009 would annualize at 3.6 million NT. Other major offshore suppliers in March were Korea (135,000 NT, down percent from March), Japan 11 (107,000, up 7 percent), and India (83,000 NT, up 11 percent). For Q1 2009 vs. same period last year, finished imports increased significantly for a number of countries – including China (up by 78 percent).

U.S. IMPO BY CO		FINISHED			
	MAR 2009	FEB 2009	MAR 2008	2008 Annual	% Change 2009 Annual vs. 2008
CHINA	196	272	243	4,821	-25%
SOUTH KOREA	135	152	159	2,305	-5.2%
JAPAN	107	100	144	1,614	-12.2%
INDIA	83	75	115	1,102	-13.4%
TURKEY	69	67	30	827	20%
GERMANY	55	34	81	1,122	-31.8%
BRAZIL	45	59	48	436	34.8%
TAIWAN	38	35	64	662	-8.8%
All Others	709	684	1,228	13,067	-29.9%
TOTAL	1,437	1,479	2,113	25,956	-21.8%

#### Universal Stainless increases base price of tool steel

Universal Stainless & Alloy Products, Inc. announced a base price increase of 5 percent on all tool steel plate manufactured at its Bridgeville facility. The increase is effective immediately for all new orders. Published material and energy surcharges will remain in effect.

#### Schnitzer Steel board declares quarterly dividend

The board of directors of Schnitzer Steel Industries, Inc. declared a cash dividend of \$0.017 per common share, payable on June 1, 2009, to shareholders of record on May 18, 2009.

Schnitzer has paid a dividend every quarter since going public in November 1993.



# **RUBBER** Magnum prepares for opening of high volume rubber processing plant

Magnum D'Or Resources, Inc. announced the arrival of its latest system to Magog, Quebec – the Granutech Grizzly M80. The company expects more equipment deliveries as completion nears for the high volume crumb/nugget rubber plant they have planned.

Magnum Canada has recently prepared new client samples to be delivered to the Magnum/SRI Lab in Malaysia. Tests include 20, 30, and 40 mesh output from OTR tire buffing operations. These new compound trials will be utilized in the current and future Next Generation Custom Compounds.

Magnum has also been working on a completely innovative way of cutting huge OTR "Black Gold" tires. Results are expected to be available very shortly. The is expected to benefit the output production significantly when producing nuggets, crumb, powders and next generation compounds.



Magnum's current 98,000 sq. ft. facility is located in Magog, Quebec. The company is utilizing their technology to produce next generation rubber recycling solutions for custom compounds, retread compounds, processing aids, advanced state-of-the-art equipment and reactivated ambient/cryogenic rubber powders for the global market.

# TIA accepting nominations for 2009 Hall of Fame

The Tire Industry Association (TIA) announced the association is accepting nominations for the 2009 Tire Industry Hall of Fame from May 1 to July 1, 2009. The Hall of Fame is open to individuals in the tire industry, including manufacturers, inventors, publishers, equipment suppliers, tire association executives, tire dealers, tire and rubber recyclers and retreaders. The "Historical Contributors" category of the Hall of Fame recognizes those individuals who have been out of the industry for at least 20 years or more. These individuals may be retired, deceased, or may have begun their career in the tire industry and moved on to a different industry.

Inductees are chosen based on the following criteria: their contributions of new ideas, practices and/or innovations that promote the health and well being of the tire industry; their exemplary and distinguished service in the tire industry; and the respect of their peers. Contributions in civic, cultural, educational or charitable endeavors will be considered, but are not a primary consideration as attributes for selection.

TIA is also accepting nominations for the Friend of the Industry Award (a former International Tire and Rubber Association award) which recognizes well-known individuals who are allies and proven supporters of the tire industry. These individuals are not part of the tire industry, but have affected it positively in some manner.

The deadline for nominations for the Tire Industry Hall of Fame and Friend of the Industry Award is July 1, 2009.

For details and how to obtain a nomination form, view this article on www.AmericanRecycler.com.

# Louisiana rubber recycling plant approved for operation

Louisiana Elastomer has received approval from the state of Louisiana to begin operations at its rubber recycling plant in northwest Louisiana. The company, which provides a unique and cleaner solution to recycling scrap tires, has already begun exporting its product to China, Sri Lanka, Mexico and Germany.

The company's environmentally friendly technology replaces the current standard disposal practice, producing a value added product that provides a permanent solution to the hazardous waste problem relating to the disposal of scrap rubber and waste tires. The process allows for more recycled material to be made into new rubber products, such as conveyor belting, industrial rollers and tread rubber for new and re-capped tires.

The investment in Louisiana Elastomer was made in connection with the Louisiana New Markets Development program, an economic development tool designed to encourage investment in small businesses located in distressed communities throughout the state.

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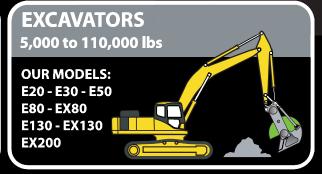




BACKHOES

LOADERS/TELEHANDLERS 9,900 to 88,000 lbs OUR MODELS: S45 - BL80 - WL130 - WL180 - WL250





# Steel prices got you down? R.M. Johnson has your

Take advantage of the lower new steel prices by buying your new equipment now! There's <u>never</u> been a better time.

You can **write off 100% of the cost** of a new E-Z Crusher or E-Z Baler using this year's \$250,000 Section 179<sup>\*</sup> equipment expense deduction. Added with the extended full two

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When calling, ask your sales person to tell you about the new high-speed automated chambered baler!

Sort your material while finishing a bale, load or unload a truck while finishing a bale. Increase your production as market demands increase. This time, be ready and have the equipment for market demands!

\*Seek the advice of your tax preparer for full Section 179 details.

Silver Lining.

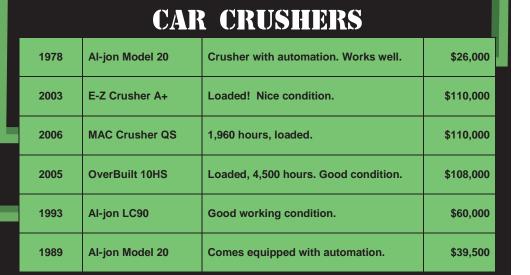
R.M. Johnson Company is looking for older trade-in units.

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			BALERS			
	2008	Sierra RB6000	Like new condition. Approx. 400 hours.	\$375,000	Same and the	
L	2005	Al-jon 580CL	4,000 hours. Good condition.	\$299,000		
L	2007	Al-jon 400XL	Approx. 1,300 hours. Very nice.	\$260,000		00
	2004	Al-jon 400XL	6,500 hours. Nice condition.	\$235,000		
	2009	Iron Ax	Iron Packer Auto Logger. <i>NEW</i> with crane.	\$438,000	and the second second	The second





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2003	Linkbelt 4300	Rotating grapple, scrap handler pkg.	\$72,000
2003	Liebherr R954 HWD	Equipped with 25 kW gen-set.	\$248,000
1996	Liebherr 932EW	Scrap grapple. Good condition.	\$148,000
2006	Fuchs MHL 350	With grapple, 5,600 hours. Very nice.	\$239,000
2002	Liebherr A904	10,000 hours, gen-set. Good condition.	\$129,000
1999	Fuchs RHL 340	Grapple, no gen-set. Good condition.	\$179,000
1994	CAT 375LC	Rebuilt motor.	\$239,000
1989	CAT EL300	Includes magnet & grapple Runs well.	\$68,000



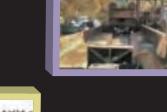
800-823-9688 Perrysburg, OH

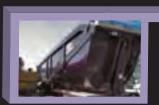
Visit DADECapital.com for a complete list of current equipment and more photos.

# A2' dump trailer. 90 yard. Used 7 time

\$56.000

	2000	JWIT	42 dump trailer. 30 yard. Osed 7 times.	450,000	
	2006	Stoughton	52' drop deck trailer. Used 6 times.	\$20,500	
	1993/2006	Komatsu PC 220LC	Includes MSD 2500 shear.	\$148,000	
	2004/2008	CAT 325	With MSD 2500 shear. 4,800/600 hours.	\$295,000	
72,000	2008	LaBounty UP30SV	Shear in almost new condition.	\$155,000	
52,000	1992/2000	Koehring 6644-7	With LaBounty MSD70	\$95,000	
15,000		Mosley 350-T	350-ton shear, well maintained.	\$55,000	
32,000		Mosley 500-T	500-ton shear with squeeze box. Runs.	\$65,000	





200

		LOADERS	
2003	Case 621D	Forks, good condition. 9,000 hours.	\$72,000
2001	John Deere 544H	With car forks. Excellent condition.	\$52,000
2006	Case 621D	Forks and bucket. 2,000 hours.	\$115,000
	CAT 950	Car loader, cheap but runs well.	\$32,000



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## **AUTO**

# ARA calls for the rescue of recycled car parts

All across the world, governments are implementing early vehicle retirement programs that are intended to help struggling automakers.

This year already, two accelerated vehicle retirement bills have been introduced in the United States Congress. Regrettably, both seek to restrict the sale of two major replacement parts - the engine and transmission - harvested from vehicles turned in for end-of-life processing under these programs. Notwithstanding good intentions, while these measures may assist automakers now, they will inevitably hurt the consumer later, with short-term and longterm repercussions, if not properly addressed. Additional analysis of the potential ramifications of these proposed programs is needed.

The critical nature of this kind of broad legislation is twofold. First, American automobile repair businesses and consumers purchase these recycled vehi-

vehicles running. These businesses and consumers rely on parts from recycled vehicles because of their substantial savings in reduced repair costs and lower insurance premiums, savings from the purchase of a replacement vehicle, and also for the strong environmental benefits. In fact, these two parts alone typically account for some 50 to 60 percent of a professional automotive recycler's sales – overall automotive recycling is a \$22 billion industry in the United States. Thus, Congress should understand the demand for such repair options, and consider the implications of restricting them.

Secondly, what may be a voluntary program for a consumer turning in a vehicle under the "Cash for Clunkers" program now quickly becomes a compulsory program for non-participating consumers later because of reduced access to replacement parts, which in turn causes inflated

cle components every day to keep their prices. Not to mention that these recycled automotive replacement parts have the same performance, safety, fit, and durability standards because they were made by the Original Equipment Manufacturers.

#### While earlier programs targeted vehicles 15 years and older, new initiatives target vehicles as current as 8 years old.

The Automotive Recyclers Association's executive vice president Michael E. Wilson questions the sensibility of the program given the current situation of the automotive manufacturers. "With the daily questions in the media about the economic survival of major automobile manufacturers and their suppliers, how irresponsible is it for Congress to push for the needless scrapping of millions of replacement parts when the very supply chain for new parts is in jeopardy?"

Ultimately, these efforts tread into unchartered waters. Even though these initiatives are modeled on prior programs, the difference is the vehicle life years these programs now include, which can be as current as 8 years old. With vehicles on America's roads averaging 9.7 years and trending older, the adverse financial consequences of these programs, especially on the average American family, is real and has not been adequately considered. There is also a significant risk that these programs will encourage future governments to treat motor vehicles more like a disposable product to be routinely discarded based on any issue of the day instead of maximizing the vehicle's recycled parts content and its true life cycle.

The recovery, reuse, and resale of quality recycled parts must remain readily available to the consumer who may not want or be able to retire their vehicle and will require access to parts from these vehicles for their future repairs.

#### areless disposal Environment ot car parts harmed

Over the past month, environmentalists have been strongly expressing their disappointment regarding the "Cash for Clunkers" legislation compromise announced by Democrat lawmakers and President Barack Obama. In prominent media outlets such as the NewYork-Times.com, they warn that the \$4 billion taxpayer-funded compromise provides little in oil savings or cuts to global warming pollution. Those who care about the environment should also be alarmed that the proposal paints a bull's eye on the vehicle recycling industry.

Regrettably, the current Congressional "Cash for Clunkers" proposal seeks to restrict the recycling of two major replacement parts - the engine and transmission - harvested from vehicles turned in for end-of-life processing under the program. The reuse of recycled engine and transmission parts - and not having to produce a new replacement part – provides a huge benefit to the environment, the

MFG. CO. INC.

equivalent of what it takes to produce 50 million gallons of gasoline or the electrical usage of over 61,000 homes for a year. Not to mention, the manufacturing of a new car requires energy which in turn leads to greenhouse gas emissions like CO<sup>2</sup>. It is estimated that when one drives a new car out of the showroom that car has already effectively emitted from 3 to 12 tons of CO<sup>2</sup>.

American consumers and automobile repair businesses purchase these quality recycled vehicle components every day to keep their vehicles running. These businesses and consumers rely on parts from recycled vehicles because of their substantial savings in reduced repair costs and lower insurance premiums, savings from the purchase of a replacement vehicle, and also for the strong environmental benefits. In fact, these two parts alone typically account for some 50 to 60 percent of a professional automotive recycler's sales -

overall automotive recycling is a \$22 billion industry in the United States. Thus, Congress should understand the demand for such repair options, and consider the implications of restricting them.

"One would think that Congress would have learned a lesson from the recent home mortgage mess," says Automotive Recyclers Association's executive vice president Michael E. Wilson.

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"Pushing consumers into vehicles that they cannot afford is not good for anyone - most of all the American taxpayer." Wilson added, "The recovery, reuse, and resale of these quality recycled parts must remain readily available to the consumer, who may not want or be able to financially retire their vehicle, and will require access to parts from these vehicles for their future repairs."



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## AUTO

# LKQ announces record revenue and earnings

LKQ Corporation announced record results for the first quarter in 2009. Revenue was \$518 million, an increase of 5.3 percent from \$491.9 million in the first quarter of 2008. Net income for the first quarter of 2009 was \$32.3 million, an increase of 4.6 percent from \$30.9 million in the first quarter of 2008. Diluted earnings per share was \$0.23, as compared to \$0.22 for the same period of last year.

For the first quarter of 2009, consolidated revenue, excluding other revenue, was \$469.3 million, an increase of 9.1 percent compared to \$429.9 million for the first quarter of 2008. Organic revenue growth, excluding other revenue, was 5.1 percent. Organic revenue growth, including other revenue, was flat because of the impact of lower commodity prices, primarily affecting self-service retail operations.

# Salvaging Millions

by Ron Sturgeon Autosalvageconsultant.com

#### Sit out the recession by joining a peer benchmarking review group

Reid Hoffman, chief executive officer of LinkedIn, asked an interesting question of participants involved in the business networking site. He asked a question about the best ways small business people could stimulate the economy on a grassroots level.

I believe he is asking the right question. I firmly believe that the recovery, when it comes, will be led by small business owners. Small business owners don't ask for a lot of help from the government. They need only government policies which do not hinder them in their efforts to create jobs.

In the current climate, even these policies may be too much to hope for, but there is still a lot that small business owners can do to make certain they thrive in the challenging times ahead.

I have been in business for more than 30 years. I did very well in the auto salvage business – even during severe economic downturns in 1980–81 and 1991–92.

I attribute a lot of my small business success in tough times to a peer benchmarking review group that I belonged to. The group was made up of about a dozen salvage yard owners from non-competitive markets.

We met twice per year and shared our operating metrics. In the more than 10 years the peer benchmarking review group existed, not one of the small business owners dropped out. Let me tell you why.

Each meeting, one or two of us had numbers for a metric that far exceeded the group's average. We shared the specifics of how we achieved those results with the other small business owners in the group.

The group went home, applied what they learned, and grew their market share at the expense of local competitors who were not part of an industry-specific peer benchmarking review group like ours. Over time, the gap between members of the group and their competitors grew wider and wider because the business owners who belonged were tapping hundreds of years of industry experience twice a year. They all benefited from innovations perfected by any member of the group while their competitors muddled through alone. In 1999, Ford Motor Company pur-

chased many of the businesses that were owned by members of that group. They did so because the small business owners in our group led their industry in innovation and in booked business. I attribute most of my success in the salvage business to applying what I learned in those meetings of yard owners.

Certainly, I contributed a great deal, but I never left one of our industry-specific peer benchmarking review group sessions without three or four immediately actionable ways to improve my small business. Same-industry peer mentoring is among the most stimulating things business owners can do for themselves to ensure that they thrive in this tough economy.

I am working on a project to form such groups for small business owners in a variety of industries. If you see the value of attending such a session, call me now because we will only take one business from each geographic area so that competitors do not find themselves across the table from each other.

Hoffman is right – the economy will grow as a result of the innovation of smaller entrepreneurs who invest in themselves and their businesses. Bailing out businesses that are "too large to fail" is folly that will cost the taxpayer dearly. I invite you to take the initiative and become a part of a peer benchmarking review group for your industry.

Visit www.MrMissionPossible.com to learn more about industry-specific peer benchmarking review groups. From personal experience, I will tell you they work to generate the extra business required to grow a small business in tough times. Our peer benchmarking review group meeting is August 25th, 2009, though we host meetings for other small businesses year round.

#### Remember, only you can make BUSINESS GREAT!

This article was provided by autosalvageconsultant.com, which was formed in 2001 by recyclers for recyclers, to help them improve their businesses.

# Auto salvage business fined for operating without a stormwater permit

The Oregon Department of Environmental Quality (DEQ) has issued a \$9,061 penalty to Regan A. Cummins, doing business as Goshen Auto Recyclers, for operating an auto dismantling and salvaging business without an industrial stormwater permit. The business is located in Eugene.

Cummins has operated Goshen Auto Recyclers since September 2007. Because of the type of business activity at the site, including the distribution of wholesale or retail used motor vehicle parts, the business is required to obtain a National Pollutant Discharge Elimination System 1200-Z permit. The permit addresses stormwater discharges coming off the property and helps ensure that appropriate stormwater control measures are in place to protect water quality and minimize the amount of industrial pollutants exposed to stormwater that could enter public rivers and streams.

Stormwater from Goshen Auto Recyclers discharges along Highway 99 South into a drainage ditch, which ends in the Coast Fork of the Willamette River.

DEQ originally sent a letter to Cummins in January 2008, stating that

the business required a permit. DEQ requested that the business submit a permit application, land use compatibility statement and stormwater control plan by January 2008 or a no exposure certification application if Cummins believed a permit was not needed. DEO received no response. DEQ sent another letter to Cummins in September 2008, requesting that the business apply for the necessary permit within 30 days. After DEQ attempted to work with Cummins to deal with his concerns about keeping his business open during an economic downtown and permit fee costs, Cummins still did not apply to DEQ for a permit. With no response, DEQ notified Cummins in January 2009 that the violation was being referred for formal enforcement. Cummins applied for the permit on April 20, 2009.

In calculating the penalty, DEQ computed that Cummins gained \$2,461 in economic benefit by failing to apply for and pay for the necessary permit. Cummins appealed the penalty on April 20 and has requested a contested case hearing.

## Midas Muffler mishandles PCBs in used motor oil

A Midas Muffler shop located in Bellevue, Washington has reached a \$9,300 settlement with the Environmental Protection Agency (EPA) to resolve alleged federal Toxic Substances Control Act (TSCA) violations related to the mishandling of PCBs.

The PCB problems were initially discovered by a used oil recycler in Seattle, who received a shipment of 150 gallons of used oil from Midas in October 2007. Midas did not inform the recycler



that the used oil contained PCBs. When the recycler tested the oil and found that it was contaminated with PCBs, they notified EPA. The company was forced to dispose all of the used oil as PCBcontaminated fluid.

According to Daniel Duncan, EPA's regional PCB program coordinator in Seattle, facilities that handle used oil that may contain PCBs need to have proper testing, notification, storage, shipping, and disposal practices and follow their obligations under the TSCA.

Midas' alleged violations included:

•Failure to properly mark the contaminated oil container with a PCB label;

•Failure to notify EPA in advance of the shipment of the PCB waste;

•Failure to prepare a manifest for the shipment of the PCB waste.

Companies should use either a field screening test kit or send a sample of their used oil to a laboratory for analysis to determine if it contains PCBs. It is important for companies to make this determination before sending the used oil for energy recovery/disposal. If the used oil is found to have PCBs, the company must isolate the PCB-containing oil to prevent it from further contaminating other used oil.

Folks who never do any more than they get paid for, never get paid for any more than they do. \_\_\_\_Elbert Hubbard

# **AUTO** Safety-Kleen markets used motor oil

Safety-Kleen is making its re-refined oil available to consumers under the brand name EcoPower. The company is targeting retailers and distributors in the top 100 United States markets to offer the new product, including AutoZone.

"Our research shows that consumers are ready for a new category of motor oil recycled motor oil - with EcoPower," said Fred Florjancic, president and chief executive officer of Safety-Kleen.

In 2008, Safety-Kleen collected more than 225 million gallons of used oil and recycled approximately 140 million of it into base oil products for re-use in the marketplace. Safety-Kleen's re-refined oil meets or exceeds all applicable specifications set by the American Petroleum Institute (API) and the Society of Automotive Engineers, and is currently used by many large organizations, including the military, numerous state governments and automotive fleets.

The process for re-refining used oil is virtually the same as refining crude oil. Both go through the same exacting processes of distillation and hydro treating. The end product is identical to traditional motor oils made from crude and must meet the same specifications.

For more details about this recycled oil product, find this article on www.AmericanRecycler.com.

#### Ford invests \$550 million to convert Michigan plant

Ford Motor Company is investing \$550 million to transform its Michigan Assembly Plant into a lean, green and flexible manufacturing complex that will build Ford's next-generation Focus small car along with a battery-electric version of the Focus for the North American market.

The plant, formerly the production site for Ford Expedition and Lincoln Navigators SUVs, is one of three North American light truck plants Ford is retooling to build fuel-efficient small cars. The new Focus will begin rolling off the line next year and the battery-electric version of the Focus - Ford's first all-electric passenger car – debuts in 2011.

As part of the retooling, Ford will consolidate its operations from the Wayne Assembly Plant. When production launches in 2010, approximately 3,200 employees will be building the new Focus at Michigan Assembly Plant. At the plant, Ford and United Auto Workers are developing modern new operating practices to ensure high quality.

To produce the vehicles, Ford is converting three plants to car plants - Michigan Assembly, Cuautitlan Assembly in Mexico and the Louisville, Kentucky Assembly, which will be converted to produce small vehicles from Ford's global Focus platform beginning in 2011.

# **INTERNATIONAL Recyclers set for economic boost** with release of plastics quality protocol

by the Waste Protocols Project, a joint Waste & Resources Action Programme (WRAP) and Environment Agency initiative, will simplify the recovery of waste non-packaging plastic - such as plastic pipes, toys and garden furniture and make it easier for manufacturers to incorporate the material into new products.

Compliance with the Quality Protocol, which applies in England and Wales, will give plastics recyclers the opportunity to assure the quality and consistency of the materials they produce. This will help them take advantage of a range of business and environmental benefits, including potentially lower energy costs, increased revenue and significant reductions in the amount of car-

#### 100 organizations sign up to halve waste to landfill

In just six months, 100 leading organizations from across the construction supply chain have committed to Waste & Resources Action Programme (WRAP) Halving Waste to Landfill voluntary agreement, indicating that resource efficiency remains a priority despite the recession.

With the construction sector currently sending some 25 million tons of waste to landfill every year, the growing number of signatories suggests mounting recognition of the economic and environmental case for change.

"Confirmation in the Budget for 2009 that landfill tax will continue to increase year-on-year gives an added incentive to this collaborative effort to reduce the amount of construction waste sent to landfill," comments Nick Raynsford, chair of the Strategic Forum for Construction. "The industry's response to WRAP's Halving Waste to Landfill commitment is encouraging and demonstrates a clear understanding that the cost savings that sustainable working can deliver are critical in a challenging economic climate."

Marcus Gover, director of market development at WRAP emphasized the importance of signatories now delivering against their commitment: "By launching this commitment in October 2008, WRAP created a framework to support the entire construction supply chain in reaping the significant economic and environmental benefits that come from increased waste reduction. Signing up is just the beginning - signatories are setting targets and reporting progress year on year. WRAP provides practical support to ensure that all signatories have the tools and support they need to deliver against the waste reduction targets - benchmarking, measurement and reporting are key."

A new Quality Protocol published bon dioxide created through production example, the material will no longer be processes.

> Plastic converters or manufacturers who buy Quality Protocol compliant material may also benefit from a reduction in their material costs, and they will have the assurance that they are purchasing a fit-for-purpose, consistent and reliable non-waste product.

> Produced in consultation with key stakeholders from the plastics industry, this new protocol works by establishing end-of-waste criteria for the production of secondary raw materials from waste non-packaging plastics. Crucially, recyclers and processors who comply with the protocol will be able to recover waste non-packaging plastic at an early point in the supply chain. When it has been converted into chips or flakes, for

subject to waste management controls.

Marcus Gover, director of market development at WRAP, said, "This Quality Protocol will help industry recycle more of the estimated 1.4 million tons of non-packaging plastics waste generated in the United Kingdom every year. At present, around 160,000 tons of this material is recycled annually - so there is significant scope for increasing the recovery rates. It is now significantly easier for the recycling and manufacturing sectors to turn waste non-packaging plastics into valuable and useful products. The project is about improving business and resource efficiency, reducing waste to landfill and helping to tackle climate change."

# **KYOCERA** supplies solar modules for Toyota Prius

Kyocera Corporation announced that it is supplying solar modules for the new Toyota Prius solar ventilation system, an optional feature for the hybrid car model introduced in Japan by Toyota Motor Corporation. The system ventilates the air inside of the car by using the electricity generated by the solar module on the rooftop to drive the fans while the car is parked during the daytime. This feature automatically moderates temperature rise inside of the vehicle even during hot seasons.

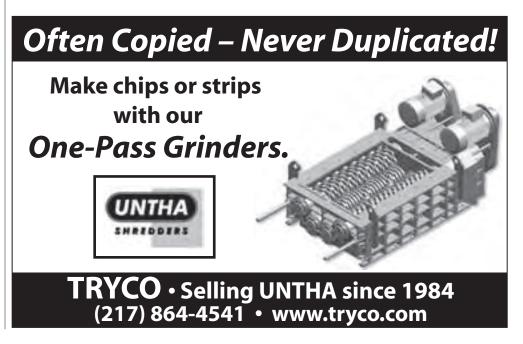
For this product, Kyocera has implemented strict quality control evaluations, done through rigorous testing to confirm heat resistance, vibration resistance, shock resistance and other aspects, in order to ensure that the quality meets the standards required for onboard components used on the new Prius. For the production of this module, Kyocera has set up a dedicated production line with specialized manufacturing engineers to ensure thorough manufacturing control.

A high level of aesthetic quality was also required of the design of the solar modules because they will be mounted on the roof of the new Prius model.

#### Metso provides recovery boiler to Phoenix Pulp & Paper in Thailand

Metso will supply Phoenix Pulp & Paper Public Company Limited with a recovery boiler to the company's pulp and paper mill in the Khon Kaen province located in the north east part of Thailand. Start-up of the boiler is scheduled for the end of 2010. The value of the order is below EUR 20 million.

The recovery boiler for black liquor burning is rated at 600 tons of dry solids per day and designed for the future capacity of 750 per day. The recovery boiler is part of Phoenix pulp and paper mill modernization project and replaces the mill's existing recovery boiler from 1981.



# WASTE

# Rentech builds renewable diesel facility

Rentech, Inc. plans to build a plant in Rialto, California for the production of ultra-clean synthetic fuels and electric power from renewable waste biomass feedstocks.

The Rialto Renewable Energy Center (Rialto Project) is designed to produce approximately 600 barrels per day of renewable synthetic fuels and export approximately 35 megawatts of renewable electric power that is expected to qualify under California's Renewable Portfolio Standard (RPS) program, which requires utilities to increase the amount of electric power they sell from qualified renewable-energy resources. The plant will be capable of providing enough electricity for approximately 30,000 homes.

RenDiesel<sup>™</sup>, the renewable synthetic diesel to be produced at the facility, meets all applicable fuels standards, is compatible with existing engines and pipelines and burns cleanly, with emissions of particulates and other regulated pollutants significantly lower than from the combustion of CARB ultra-low sulfur diesel.

The carbon footprint of the plant is designed to be near zero as the fuels and power would be produced only from renewable feedstocks. The low carbon footprint of RenDiesel would help the transportation sector meet targets established by the Low Carbon Fuel Standard Executive Order 1-S-07 to reduce the carbon intensity of transportation fuels by 2020.

Rentech has entered into a licensing agreement with SilvaGas Corporation for biomass gasification technology for the Rialto facility. Between 1998 and 2001, a 400 ton per day plant using the SilvaGas biomass gasification technology successfully operated in Burlington, Vermont, producing synthesis gas (syngas) from wood-based biomass in a series of operating campaigns. That plant was built in partnership with the Department of Energy, Battelle Columbus Laboratory and the National Renewable Energy Laboratory (NREL).

Rentech's technology for the conditioning and clean-up of syngas will provide the next critical link in the technology chain after gasification. The conditioned syngas will be converted by the Rentech Process in a commercial scale reactor to finished, ultra-clean products such as synthetic diesel and naphtha using upgrading technologies under an alliance between Rentech and UOP, a Honeywell Company. Renewable electric power will be produced at the facility by using conventional high-efficiency gas turbine technology. The power is anticipated to be sold to local utilities under the California RPS program.

Having completed preliminary scoping studies, Rentech has engaged Jacobs Engineering Group Inc. to conduct the feasibility engineering phase of the project, which is expected to be completed over the next several months. This work will advance project development activities including preliminary design and plot plans and provide construction cost estimates that would then continue to be refined throughout the subsequent detailed engineering phases of the project.

Rentech has an exclusive option on a site for the Rialto Project within the proposed Rialto Eco-Industrial Park, which is located adjacent to an existing City of Rialto Wastewater Treatment Plant and EnerTech Environmental Regional Bio-Solids Processing Facility. The location allows the proposed Rialto facility to take advantage of established infrastructure including access to water, wastewater disposal and zoning.

The primary feedstock for the Rialto Project will be urban woody green waste such as yard clippings, for which Rentech is currently negotiating supply agreements. The location of the project will provide local green waste haulers with a cost-effective alternative to increasingly scarce landfills for the disposal of woody green waste. The plant is designed to also use bio-solids for a portion of the feedstock which is expected to be provided under a supply agreement with EnerTech Environmental.

Construction of the Rialto facility is expected to create approximately 250 jobs with at least 55 permanent jobs during operation, based on the preliminary design work completed to date.

#### \$10 million in grants to clean up and revitalize California brownfields

The United States Environmental Protection Agency (EPA) has announced the availability of an estimated \$10 million in grants bolstered by funds from the American Recovery and Reinvestment Act of 2009 to help communities in California clean up brownfield sites which may be contaminated by hazardous chemicals or pollutants.

The grants, which include \$3.3 million from the Recovery Act and \$6.8 million from the EPA brownfields general program funding, help revitalize former industrial and commercial sites, turning them from problem properties to productive community use.

The grants will help to assess, clean up and redevelop abandoned, contaminated properties known as brownfields.

Grant recipients are selected through a national competition. The program encourages development of America's estimated 450,000 abandoned and contaminated waste sites.

For details of the California applicants selected to receive Recovery Act and brownfields funds, view this article on www.AmericanRecycler.com.

# **Special Repo Deals!** Take advantage of these great OPPORTUNITIES!

## Al-jon Model 20 Car Crusher

Good operating condition.

For any qualified customer, we will finance this crusher for 48 months at **0% interest AND NOTHING DOWN**. Just \$540.00 per month!

That's CORRECT, just drive your truck up to the machine and take it to your next job with nothing out of pocket.



#### Start making money immediately and make your first 0% interest payment 30 days later!

## 2006 MAC Quick Set-up Portable Car Crusher



Good operating condition and only 1,960 hours. This machine has been repossessed and their loss is

your gain. We have lowered the price to \$110,000 and we are

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Just drive your truck over, pick up the crusher and go to work with **NOTHING** out of pocket.

DADE Capital Corp.



Hurry! These deals won't last long - the market is heating up!

## WASTE

# Pennsylvania DEP confirms landfill odors at school

Odors detected at Wilson Elementary School of the West Allegheny School District in Findlay Township, Allegheny County, are originating from Imperial Landfill, the Department of Environmental Protection has confirmed.

DEP analyzed recent sampling conducted by its mobile analytical laboratory and continues to coordinate efforts with the Allegheny County Health Department, which conducted its own sampling inside and outside Wilson School in March.

The county's lab analysis measured for six Volatile Organic Compounds, or VOCs, including benzene, all of which were found to be below the detection limits. Based on these results, county officials concluded that the compounds were at levels below which one would expect to see adverse health effects in adults and children using the facility.

# **Events** Calendar

June 8th-9th NRRA's 28th Annual Recycling Conference & Expo. Radisson Manchester Hotel/The Center of New Hampshire, Manchester, New Hampshire 603-736-4401 • www.nrra.net

June 8th-11th WasteExpo 2009. Las Vegas Convention Center, Las Vegas, Nevada. 800-927-5007 · www.wasteexpo.com

#### June 24th-26th

Electronics & Battery Recycling '09. Westin Harbour Castle Hotel, Toronto, Canada. +41 62 785 10 00 • www.icm.ch

July 14th-15th

Biomass `09: Power, Fuels, and Chemicals Workshop. Alerus Center, Grand Forks, North Dakota.

701-777-5246 • www.undeerc.org

August 7th-9th Pennsylvania Automotive Recycling Trade Society's Annual Convention & Trade Expo. Sheraton Harrisburg/Hershey, Harrisburg, Pennsylvania. 877-211-0266 · www.parts.org

September 16th-18th 14th International Congress for Battery Recycling - ICBR 2009. Hotel InterContinental, Geneva, Switzerland, +41 62 785 10 00 • www.icm.ch

September 23rd-25th 19th Annual Arkansas Recycling Coalition Conference & Trade Show. Inn of the arks Hotel & Convention Center. Springs, Arkansas. 866-290-1429

September 28th-30th Biopolymers Symposium 2009. Embassy

Suites Downtown Lakefront, Chicago, Illinois. 202-309-7296 • www.biopolymersummit.com

September 29th-October 1st The Green Expo 2009. World Trade Center, Mexico City, Mexico. info@greenexpo.ca

#### October 28th-29th

Canadian Waste & Recycling Expo. Vancouver Convention & Exhibition Centre, Vancouver, British Columbia. 877-534-7285 · www.cwre.ca

As a precautionary measure, the county conducted eight-hour sets of charcoal tube air samples to monitor the school environment for VOCs, including benzene, for two weeks in April.

The county health department installed continuous monitoring equipment at Wilson School April 17 to measure hydrogen sulfide, which is an indicator of landfill gas. Currently, the data is manually collected. After the school district provides a dedicated communications link, the county will electronically download the data. In May, the county will begin spot-check monitoring for methane.

To counter the odors, the school district installed air filters March 16 in the school's heating, ventilating and air conditioning unit.

Lab analysis of samples that were collected by DEP on March 17 and 18 outside the school showed that compounds associated with the decomposition of waste were detected at several monitoring points within the landfill and were also present at Wilson School.

It is important to note that instantaneous measurements are not indicative of long-term, continuous exposure. The samples were taken for only three days, which is insufficient for complete air quality monitoring. The purpose of the testing was to determine the source of the gases and odor-causing compounds; consequently, DEP is unable to conclusively determine health risks. Data resulting from ongoing monitoring by the county will be evaluated to assess potential health and/or safety risks.

The highest reading during DEP's sampling was for methane, a gas commonly associated with landfills, at 41,768 parts per billion (ppb) - or, 41.8 parts per million (ppm) - the morning of March 17. Since that morning was foggy, the resulting atmospheric conditions would have contained any gases released into the air and would cause these higher readings. Methane at this level does not present a health and/or safety risk.

"While monitoring continues at the school, it is essential that the problem be solved at the source," DEP southwest Regional Director Ken Bowman said. "Therefore, DEP and the county health department are requiring Republic Services Inc. to take the necessary measures to control the gases emitted from the landfill."

DEP and the county are currently negotiating a Consent Order and Agree ment with the landfill's owner, Republic Services Inc., which will specify corrective actions and set penalties for past and future violations.

In addition to the mobile lab analysis, "grab" samples were collected at 11 locations in and near the landfill as well as at Wilson Elementary School. These samples tentatively identified VOCs and other compounds common to landfills.

For links to more information on the results and final reports, view this article on www.AmericanRecycler.com.

# **Republic Services reports** first quarter financial results

income for the three months ended March 31, 2009 of \$113.0 million, or \$.30 per diluted share, compared to net income of \$76.1 million, or \$.41 per diluted share, for the same period in 2008.

The first quarter 2009 financial results include Allied Waste Industries, Inc. (Allied) which merged with Republic on December 5, 2008. Operating income for the three months ended March 31, 2009 was \$353.0 million compared to \$142.2 million for the comparable period in 2008. Operating income before depreciation, amortization, depletion and accretion for the three months ended March 31, 2009 was \$598.1 million, or 29.0 percent of revenue compared to \$220.0 million, or 28.2 percent of revenue in 2008.

Revenue for the three months ended March 31, 2009 increased to \$2,060.5

Republic Services, Inc. reported net million compared to \$779.2 million for the same period in 2008. Core price for the three months ended March 31, 2009 (assuming the merger with Allied had occurred on January 1, 2008) increased 3.5 percent.

Internal growth for the three months ended March 31, 2009 (assuming the merger with Allied had occurred on January 1, 2008) decreased 8.6 percent (consisting of a 3.5 percent price increase offset by decreases of 8.0 percent in core volume, 2.9 percent in commodity prices and 1.2 percent in fuel charges).

Republic also announced that its board of directors declared a regular quarterly dividend of \$.19 per share for shareholders of record on July 1, 2009. The dividend will be paid on July 15, 2009.

## Kansas medical center settles allegations of waste violations

A Merriam, Kansas, hospital has reached a settlement with the United States Environmental Protection Agency (EPA) over allegations that it violated various provisions of the federal Resource Conservation and Recovery Act (RCRA) related to the handling and storage of hazardous wastes on its campus.

Shawnee Mission Medical Center, 9100 West 74th Street, neither admitted nor denied the allegations brought by EPA Region 7, but has agreed to pay a penalty of \$83,488 to the United States in settlement of the government's claims.

The hospital has also agreed to inventory all solid waste streams generated by its facility and provide EPA with documentation of that inventory. The hospital will make quarterly reports for a period of one year, using photographs and documentation to show that its hazardous wastes are being properly handled.

Terms of the settlement are outlined in a consent agreement and final order filed in Kansas City, Kansas. The document alleges that during a January 2007 inspection, EPA found that the hospital had:

•Failed to conduct and document weekly inspections of a hazardous waste container storage area.

•Failed to properly mark hazardous waste accumulation containers.

•Improperly treated paint and solvent hazardous wastes by allowing opened containers and solvent-soaked rags to evaporate prior to disposal, all without a necessary permit.

•Improperly disposed of solventsoaked rags in general trash.

•Failed to properly label storage containers for used oil, and failed to properly mark universal waste batteries.



# **BUSINESS BRIEFS**

#### Atlas Copco to acquire Focus and Prisma in India

Atlas Copco, India, has exercised an option to buy the remaining 75 percent of shares in Focus Rocbit and Prisma Roctools. They provide complementary products and services for rotary and down-the-hole drilling. The acquisitions will strengthen Atlas Copco's position in the market for drill bits and hammers.

Atlas Copco acquired 25 percent of the companies in April, 2008 and the companies have been operating as joint ventures of the Secoroc division since then. Focus is a manufacturer of bits for rotary drilling and Prisma makes bits and hammers for down-the-hole drilling. They are headquartered in Hyderabad, India.

As part of the acquisition agreement, Focus Mining Servi Charleston, West Vir act as an Atlas Copco in the eastern coal m

#### Veteran scrap trader Fred **Rosenfeld joins Krentzman**

Krentzman Metals Corporation (KMC), a scrap broker, based in Lewistown, Pennsylvania, with a buying office in Toronto, announced that veteran scrap trader and broker Fred Rosenfeld has joined the Krentzman firm in a new Port Jefferson, New York office.

Rosenfeld will head the newly created River Division of KMC, which will specialize in the domestic and export sales of ferrous and copper-bearing scrap materials and usable metal products.

#### Halvorsen returns as Hallco's general manager

Russ Halvorsen returned to Hallco

#### CARE releases annual carpet recycling report

■ The Carpet America Recovery Effort (CARE) released figures for 2008 that show a reduction in the recycling and diversion of post-consumer carpet, compared to 2007 levels.

CARE's 2008 Annual Report, presented at the organization's annual conference, showed that 243.4 million pounds of post-consumer carpet were recycled and 292.4 million pounds were diverted from landfills in 2008. These figures represent an 11.4 percent decrease in recycling and a .8 percent decrease in diversion compared to 2007.

However, according to CARE board chairman Frank Hurd, the decrease was less than expected by the group, especially in light of profoundly negative business results reported by other industries in 2008, and given the tough economic environment currently faced by United States businesses.

#### **RecycleBank's Ron Gonen** receives award

Ron Gonen, co-founder and CEO of RecycleBank, is the recipient of the 2009 United Nations Environment Programme (UNEP) Champion of the Earth award in the Entrepreneurial Vision category. Gonen is one of only seven honorees to earn the prestigious distinction this year and will be recognized at a special international ceremony held in conjunction with the Business for the Environment Summit (B4E) in Paris.

Champions of the Earth is an international environmental award established in 2004 by the UNEP to acknowledge the best and brightest who have made a significant contribution globally, regionally and beyond, to the protection and sustainable management of the earth's environment and natural resources.

This year's award recognizes prominent and inspirational examples of environmental leadership in the areas of Policy Leadership, Science and Innovation. Entrepreneurial Vision. Inspiration and Action, and Next-Generation Champions.

Gonen was chosen for his environmental leadership as co-founder of RecycleBank. RecycleBank recycling carts are outfitted with RFID tags and Recycle-Bank uses a proprietary technology to record and translate the amount each home recycles into RecycleBank Points that can be used to shop at over 1,400 local and national businesses.

#### Company Wrench completes acquisition

Company Wrench, headquartered in Carroll, Ohio, has acquired the demolition and scrap metal recycling assets of Interstate Equipment Co. of Lexington Kentucky. Growing in a down market through acquisition has become Company Wrench's focus.

Through this agreement, Company Wrench will market its specialty demolition and scrap processing products in Kentucky and Cincinnati, Ohio. In addition, Company Wrench has recently established branch locations in Columbia, South Carolina and Pasco, Washington.

#### Verenium appoints Levine executive VP and CEO

■ Verenium Corporation announced the appointment of James E. Levine to the position of executive vice president and chief financial officer. Levine will report directly to Carlos A. Riva, Vere nium's president and chief executive officer.

Prior to joining Verenium, Levine held various positions with Goldman Sachs & Co., most recently as a managing director in the Power and Utilities Group in New York. Prior to that, he was a managing director in the Energy Group in London. The majority of his tenure at Goldman Sachs & Co. centered on investment banking in the oil and gas industries, with a particular focus on the refining and marketing sectors.

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13. The science of the relationships between organisms and their environments	28		┢	┢		
16. Engine power measure						
17 humbug!					-	
20. For instance		32		33		34
21. Dove call	39			40	41	
23. Ailment symptom						
25. Henpeck				45		46
28. Nature's way of recycling	49	50	51			
29. One of the three "R"s						
31. Shade of green	55			56		57
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38. Medical expert 39. A method of collecting recyclable materials where individuals take their recyclables to a designated collection site (2 words) 41. That is, for short 43. Solid waste 46. Salad veggie

- 47. Used as a measurement of the solid waste disposal rate at
- a landfill
- 50. Let's \_\_ lunch!
- 51. Think piece 53. "You've got mail!" provider
- 54. Notes
- 56. Tellurium symbol
- 58. US car club
- 59. Fodder holder
- 63. Napoleon in "Animal Farm"
- 66. Conditional word

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# **BUSINESS BRIEFS**

#### Norb Geiss joins SiCon America in Florida office

■ SiCon America opened a new sales and consulting office for the Americas in Venice, Florida. Norb Geiss has joined SiCon GmbH.

Geiss will be representing SiCon America, and their equipment partners, to provide innovative recycling solutions that implement custom-tailored turnkey metal recovery and greener ASR recycling systems.

Geiss held many management positions during his 30 years in the shredding, metals separation, used auto part and sales/administrative functions of The David J. Joseph Company, in the United States and Europe.

# Primary Energy Recycling declares cash distribution

■ Primary Energy Recycling Corporation announced that a cash distribution of Cdn\$ 0.06667 per enhanced income security (EIS) of the company will be paid on June 30, 2009 to holders of record on May 29, 2009.

Each EIS consists of one common share and a subordinated note with par value of Cdn\$ 2.50 which pays interest at a rate of 11.75 percent per annum. The EISs trade on the Toronto Stock Exchange under the symbol PRI.UN. The total distribution of Cdn\$ 0.06667 per EIS reflects a cash distribution of Cdn\$ 0.04219 per common share and an interest payment of Cdn\$ 0.02448 per subordinated note for the period from May 1 to May 31, 2009.

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Windsor Barrel

A8

#### Deltalok USA expands management team

■ Deltalok announced the addition of Robert Race, P.E. to its management team in the capacity of director of engineering services for Deltalok USA.

Race comes to Deltalok with over 20 years of expertise in the design, testing, implementation, marketing, training and sales of retaining wall systems for civil engineering applications. His work includes senior management roles at Millenia Retaining Walls, Keystone Retaining Wall Systems, The Tensar Corporation and Stone & Webster Engineering. He holds a Bachelor of Science degree from Cornell University and master's degrees from Purdue University and Georgia College.

#### Harsco names CEO for Harsco Metals group

■ Harsco Corporation announced the appointment of Galdino Claro as the new CEO of its global Harsco Metals business group, effective June 1, 2009. Claro will be directly responsible for more than 160 locations in over 30 countries employing approximately 11,500 people.

Claro comes to Harsco with nearly 30 years of executive leadership experience in the worldwide metals industry, including 20 years as an international operations executive within Alcoa Inc. where he led the strategic growth of operations in the Asia-Pacific, European and Latin American regions. He joins Harsco from Aleris International Inc., a Texas Pacific Group company and a global leader in the aluminum rolling and recycling industries, where he served as CEO of Aleris Americas.

Prior to Aleris, Claro was the president and CEO of the metals processing group of Heico Companies LLC, a Chicago-based firm specializing in acquiring underperforming companies and growing them into industry leaders.

Claro will be based in the United States, heading up a new global headquarters organization for Harsco Metals that will oversee the group's regional headquarters throughout the world. He will be responsible for executing a number of key strategies of the Company including emerging market growth, as well as customer and market diversification. He will report to Geoffrey D. H. Butler, who as Harsco's president and member of the Company's Board of Directors will continue his overall responsibilities for the Company's operations and strategic business objectives.

#### Norcal Waste Systems changes corporate name

■ Norcal Waste Systems has formally changed its corporate name to Recology.

The name is rooted in the company's 89 year heritage as one of the nation's first urban recyclers.

Recology has relocated to a Gold LEED-designed corporate office in downtown San Francisco. Environmentally, the new office space will achieve the highest performance certification practical in this building, saving energy, water and money.

#### Morbark and Great West Equipment join forces

■ Great West Equipment, of British Columbia, Canada, recently signed on as an exclusive dealer of Morbark recycling, forestry and tree care equipment. Great West has been serving the forestry and construction industries for 22 years.

Formerly Marcels Equipment, Ltd., Great West Equipment also offers Volvo Construction Equipment, used equipment, parts and service. They serve the province of British Columbia with nine locations: Campbell River, Cranbrook, Fort St. John, Kamloops, Nanaimo, Prince George, Vancouver, Vernon and Williams Lake.

# Brosick to direct product strategy for Doosan

■ Stefan Brosick has been promoted to director of global product strategy for Doosan Infracore International. The appointment was made by Scott Nelson, chief executive officer, Doosan Infracore International.

In his new role, Brosick will be responsible for supporting the global development of Doosan Infracore International product strategy, working closely with regional product strategy leaders.

Brosick brings marketing and business development experience to his new position, having held marketing and business analyst roles with Bobcat Europe and Ingersoll Rand, as well as integration leader for marketing and sales for the Geith acquisition and product manager for DII Attachments businesses.

Most recently, Brosick served as industry marketing manager for Doosan Infracore Portable Power in Statesville, North Carolina. Before joining Ingersoll Rand in 2005, he was an independent owner-operator of a contracting business for seven years.

#### ROUND2 Inc. acquires PolymerCycle LLC

■ ROUND2 Inc. has announced the acquisition of PolymerCycle LLC, a national processor and reseller of plastics, including ABS, PC/ABS, HIPS and PC.

The acquisition complements ROUND2's strategy to deliver a closedloop recycling solution for processing eWaste.

Effective immediately, PolymerCycle will operate as a wholly-owned company from ROUND2's 183,000 square foot facility in the Dallas/Fort Worth Metroplex, the largest electronics recycling facility in Texas.

EPA research indicates 18 percent of the 2.25 million tons of e-waste in the United States was recycled in 2007. With an EPA estimated 140 million TVs and computer monitors in storage, there is an impending avalanche of plastic byproduct waiting to be recovered. ROUND2 is positioned to assist clients and municipalities properly manage this potentially large flow of material.

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# Enerkem awarded permit to build biofuels facility

■ Enerkem, a waste-to-biofuels technology company, announced that Enerkem GreenField Alberta Biofuels (EGAB) has completed the necessary environmental regulatory process and has been granted a permit to commence construction of a commercial facility to produce biofuels and green chemicals from sorted municipal solid waste in Edmonton, Alberta.

The permit was granted by Alberta Environment under the Environmental Protection and Enhancement Act of the Province of Alberta.

In 2008, EGAB entered into a 25year agreement with the City of Edmonton to build and operate a waste-to-biofuels facility on municipal land and to receive the City's sorted municipal solid waste as feedstock. The City of Edmonton will supply 100,000 tons of sorted municipal solid waste per year. The sorted municipal solid waste to be used is the end-waste after recycling and composting. These residues would otherwise be landfilled.

Construction of the biofuels facility is expected to begin by the end of 2009, at a total cost of approximately CDN\$70 million.

# **NEW PRODUCT SHOWCASE**



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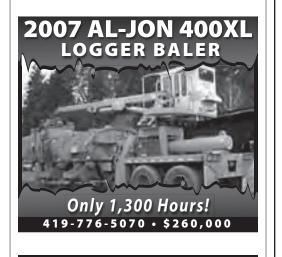


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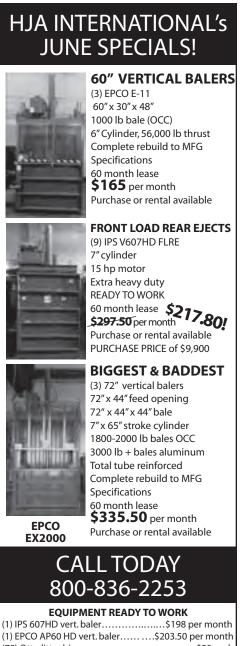
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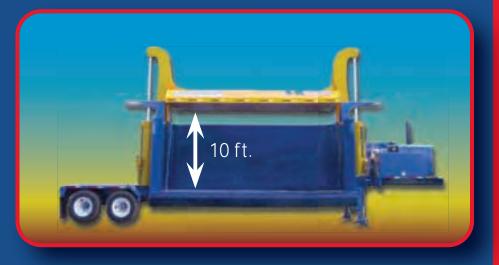
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#### FOCUS on PAPER/PLASTICS American Recycler. WWW.AMERICANRECYCLER.com JUNE 2009

Recovered paper in recovering markets

# New York enacts water bottle deposit

#### by BRIAN HOOK bhook@americanrecycler.com

Bottle and can recyclers in New York are expanding their operations and hiring new employees following changes to the state's beverage container deposit law.

The state's Returnable Container Act – commonly referred to as the "Bottle Bill" – now requires a \$.05 deposit for water bottles in addition to carbonated soft drinks, beer and other malt beverage containers after legislators amended the law this spring.

"This will have a huge impact on redemption centers across the state," said Sheila Rivers, chairperson of the Bottle and Can Redemption Association in New York. Rivers is also the owner of EZ Bottle and Can Return in Fairport, New York. She said that centers like hers will be investing in new equipment and expanding their facilities.

"We will be growing, expanding, and new redemption centers will be opening. We will be creating hundreds, if not thousands of new jobs," Rivers said. There are currently more than 300 private and non-profit redemption centers in the state.

The expanded bottle bill also increases the handling fee for recycling bottles and cans from \$.02 to \$.035 cents per container. Rivers said that the increase is critical to the survival of the redemption centers and will enable recyclers to hire new workers to handle the expected increase in returns. There has not been an increase since 1997.

The first major revision of the state's deposit law since it was created in 1982 also requires beverage companies to return 80 percent of the unclaimed bottle and can deposits to the state. This is expected to generate \$115 million for the state's general fund for this fiscal year. The remaining 20 percent will be kept by the beverage industry.

With nearly 2.5 billion bottles of water sold each year, making up an estimated 23 percent of the beverage sales See DEPOSIT, Page 2

#### by MIKE BRESLIN mbreslin@americanrecycler.com

As many have become painfully aware, the global economic crisis sent shockwaves through the recycling industry. Domestic and international demand for recovered paper was strong through the first half of 2008, but a sharp decline in demand in the second half drove prices down. Since January, however, there have been glimmers of hope in several recycled commodities, including recovered paper.

"Recycled markets are not sustainable at prices we saw last summer, and they are not sustainable at the prices we saw in November and December. That was historically very high and historically very low," said Marc Forman, president of Harmon Associates LLC, a Georgia-Pacific company and one of the largest buyers and sellers of recycled fiber in the world. The company sources secondary fiber for Georgia-Pacific's recovered fiber mill system, as well as for other global customers. Harmon has been in the wastepaper business for 40 years and trades approximately 7 million tons per year. "So, prices will ultimately migrate to where they have traded in the past, within a band. Do we believe that prices will be sustained at current levels? No. It's impossible for anyone to predict when demand will come back, but when it does there's likely to be a shortage of supply which will spike prices up. We will recover and find our way back to where prices have historically traded," said Forman.

According to AF&PA, exports represented 38 percent of all paper recovered through recycling during 2008 with China taking the lion's share, 11.6 million tons of the 19.5 million tons exported to all countries. China also imported recovered paper from Europe and Japan, but United States exports provided the majority. For 2008, the U.S. Department of Commerce estimat-



The lack of generation of various paper grades caused by the recent economic contraction has caused prices to rise slightly as demand for recycled product has slowly increased in recent months.

ed the value of all American recovered paper exports to all countries at nearly \$2.96 billion.

China recovers some paper internally, but it is such a large exporter of packaged goods that demand for paper far exceeds the country's domestic production. Chinese recovered paper demand decreased dramatically during late 2008 due to excess inventory build-up earlier in the year and the worldwide recession, which drastically cut China's manufacturing output and negatively affected the See MARKETS, Page 5



## A Letter from the Editor

#### Dear readers,

Welcome to this month's double focus on papers and plastics. Much like the grocery store (paper or plastic?), you can choose which news to peruse, but I promise it's all good.

Since we only have so many months in a year, American Recycler is consolidating commodities where we can so that important topics all receive special coverage. We've attempted to group those that complement each other, and I think you'll find that we've struck a good balance this month between our plastics and papers news coverage.

But the news is more than just written well – it's positive too. Plastics prices seem to be stabilizing, and possibly even inching up a wee bit. Paper prices are creeping back upwards as well. Are prices going to return to the heights from which they plummeted any time soon? Probably not, but hey – at least the markets seem to have plumbed the bottom and are coming back.

Does that mean it's time to cash in on that huge pile of American Recycler back issues that have been piling up in your office? Of course not! A few extra bucks a ton is great news, but it's hardly worth losing all of the vital salvage, waste and recycling news and photos that American Recycler provides.

I mean, sure all that information is available online at our website. But like a library of old books confers an air of learning, a library of old copies of AR lets the world know that you're a reader of the industry's premier publication, and that you know what you're about.

So keep those back issues. Neatly arrange them on your shelves in chronological order (for those who skipped collecting old books, that's ordered by date and time), and keep them well dusted (so people can see that you reference them often).

I guarantee that you'll notice an immediate increase in the amount of respect that industry people afford you.

But regardless of whether or not you plan to keep this issue for posterity, I hope you enjoy it now. We've got some great articles in both the Main and the Focus Sections for you to read about all the news that matters to you.

And remember, stay in touch. I enjoy hearing from our readers, even if it's an idea for something we could improve upon.

Have a great month everyone,



Dave Fournier Focus Section Editor david@americanrecycler.com

#### Nationwide bottle legislation proposed

House of Representatives Democrats have put forth two bills for consideration aimed at reducing pollution caused by beverage containers and disposable plastic bags widely used by grocery stores across the nation.

The Bottle Recycling Climate Protection Act, first introduced in 2007, was reintroduced by Reps. Ed Markey (D-Mass.) and Jim Moran (D-Va.). It aims to establish a \$.05 deposit on plastic bottles and other beverage containers nationwide.

The 11 states with deposit laws already on the books would be exempt from the national legislation for 3 years, or so long as their recycling rates remain above 50 percent.

Though the initiative is lauded by environmental groups like the Container Recycling Institute, some see the bill as just another tax, while others see it as unnecessary, citing that water bottles are already a highly recycled item as measured by curbside recycling.

Also introduced by Moran was the Plastic Bag Reduction Act of 2009. It would establish a \$.05 tax per single-use bag effective January 1, 2010. The tax would increase to \$.25 per bag in 2015. The tax would cover bags from grocery, dry-cleaning, take-out food, and other single use applications.

The plastic bag tax would be used to fund multiple programs. Retailers implementing the program would receive a one cent tax credit. The Land and Water Conservation Fund would receive a onecent allocation for pollution control, and another cent would be distributed to state and local trash reduction programs. The final two cents would be used to pay down the national debt.

		coming Section B torial focus topics:
ISSUE	CLOSE	FOCUS 2009
JUL	6/17	Wood/Green Waste
AUG	7/20	Auto Recycling
SEP	8/18	Solid Waste
ОСТ	9/17	Non-ferrous Metals
NOV	10/16	C&D
DEC	11/16	Alternative Energy
		e BEST time your company.
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# Deposit

■Continued from Page 1

in New York, the state is anticipating a boost in recycling. "There will be a significant increase in the number of beverage containers requiring a deposit," said Val Washington, deputy commissioner for remediation and materials management with the New York State Department of Environmental Conservation.

"In addition to directing all of these water bottles into the recycling stream, the deposit will also result in a significant reduction in litter." The state estimates that in the 27 years that the bottle bill has been in existence it has reduced roadside litter by 70 percent, recycled 90 billion containers, and saved more than 52 million barrels of oil.

Environmentalists are also praising the addition of water bottles to the state's deposit law. "This expansion covers about 70 percent of the containers we were looking to cover," said Saima Anjam, a program associate at Environmental Advocates of New York. She said her group was hoping the addition would include all non-carbonated beverages. But it only covers water, nutritionallyenhanced and flavored waters.

Before the expansion of New York's deposit law, less than 20 percent of water bottles were recycled in the state, according to estimates by Laura Haight, senior environmental associate at the New York Public Interest Research Group. "With the expansion of the state's bottle bill we expect the recycling rate to triple or quadruple," Haight said, noting that return rates for bottle bills average just under 70 percent.

Haight said that she expects others states will follow New York's lead and include water bottles in their deposit programs. "New York is a very large state and it is going to cause a ripple effect throughout the industry," she said. "It is certainly energizing advocates in other states that are working to either create or expand bottle bills."

Eleven states have bottle bills. While some include water, like Maine, Hawaii, Oregon and California, others do not, like Iowa and Michigan. Connecticut expanded its bottle bill to cover non-carbonated water earlier this spring. Bottled water in Connecticut now carries a \$.05 deposit and unclaimed deposits are now returned to the state.

"The details of the different laws are quite different. But I think this is showing that states with bottle laws are recognizing the need of updating their laws to reflect the public's current drinking habits," Haight said. "Many times the strongest environmental laws get passed first by states and are then the tipping point for national action."

The Sonoma, California-based trade group, the National Association for PET Container Resources, takes a neutral stand on bottle bills. "We support anything that will bring bottles back from the waste stream," said Dennis Sabourin, executive director. "But we don't specifically support water bottles. We feel that it is part of an overall program that would include drop offs, curbside collection programs, and of course bottle bills."

Since there are currently a number of different plans to include water bottles in bottles bills across the country that are being considered by state legislatures, the United States could end up with a different recycling system for each state, Sabourin said.

Therefore, a national bill might be an option to consider. "Could it be something that would give a uniform system and something where all stakeholders could weigh in on the issue to make sure that it is the best compromise for all stakeholders? There is something to be said about that," he said, again stressing his group's neutral stance.

Other trade groups are opposed to bottle bills. The International Bottled Water Association, based in Alexandria, Virginia, claims bottle bills create disincentives for curbside recycling efforts by giving consumers a financial incentive not to put their empty bottles into curbside recycling and forcing them to return bottles to stores.

The American Beverage Association, based in Washington D.C., also opposes efforts, like in New York, to expand bottle bills. "In an economy like this, the last thing government should be doing is raising taxes," the group said in a statement. The trade group estimates the New York deposit fee equals a 25 percent sales tax on water.



create new jobs in the soon to be busier redemption centers.

# Plastic flake supply doesn't meet demand

by IRWIN RAPOPORT irapoport@americanrecycler.com

Peninsula Packaging, LLC uses the equivalent of 1.2 billion plastic bottles annually in its production of plastic packaging at its plants in Exeter, California and Raleigh, North Carolina.

The firm, based in Exeter, uses #1 plastic exclusively and is a major purchaser of flake on the west coast.

Nearly 50 percent of the material used to make plastic is flake and the company is seeking to increase that percentage.

"Why are we not 100 percent?" asked Ed Byrne, Peninsula's general manager. "It is because the infrastructure doesn't exist to clean bottles and get the feedstock to us. This year we will buy a little over 40 million pounds of recycled materials."

Lower prices for plastic recyclables have not translated into an increased supply of flake for industry.

"There is still a limited availability," said Byrne, who is disappointed that the washing capacity has not expanded to ensure that the increased amount of materials can be washed to remove labels and grime and be turned into flake for a guaranteed industrial demand. "Baled bottles sit around and are stacked up everywhere."

"Why are we not 100 percent? It is because the infrastructure doesn't exist to clean bottles and get the feedstock to us." –Ed Byrne

Asked why the washing infrastructure has not expanded, Byrne gave his take on the situation in California.

"There are huge political forces that have prevented the building of more capacity," he said. "There is money within the state to enhance recycling that comes from the bottle deposit system. Not all that money gets refunded and that money is supposed to be used for the enhancement of recycling.

"What has happened is that the Department of Conservation [DOC] has awarded a number of contracts to people to put in washing lines and then they don't do it," he added. "So for us who think about putting in a wash line on our own, there is just no way you can do that with the concern that you are going to compete with someone next year that is a state-funded facility. The good intentions of the DOC towards these grants have served the purpose of preventing additional wash lines in the state."

Byrne estimates that a wash facility costs between \$15 and \$20 million to build, and as such, has tried to do his part to increase flake supply.



Bales of bottles like these sit around in stacks due to a lack of washing capacity. Washing capacity has failed to grow quickly, despite a high industrial demand for flake.

"We have invested money and loaned money to people who make flake," he said.

But Byrne does appreciate California's role in promoting the use of flake, especially the incentive program that pays manufacturers that produce flake and industrial users.

"It's a tremendously successful program," he said. "Other states do it, but California is the leader. The funds are full circle funds."

Peninsula owns the largest privately-developed solar power generating station in California, producing more than 2 million kilowatt hours per year.

"Our original intent was to position ourselves so that we had a low cost power source over the long-haul," said Byrne, who noted that solar also helps to reduce the effects of voltage drops that affect the California electrical grid.

Ninety percent of Peninsula's products are manufactured in California. The North Carolina site was chosen for its proximity to customers. That plant uses 20 percent recycled flake. Byrne is hoping to increase that percentage soon.

He is also aware that, like carpet manufacturers and other users, his firm cannot get enough recycled #1 flake and would support a government required message asking consumers to recycle their plastic bottles and containers to increase the supply.

Asked who gets the limited supply of recycled flake first, Byrne replied, "whoever pays the most."

In addition, he said, because the plastic used in the creation of plastic comes exclusively from petroleum, every bottle recycled into flake helps to reduce the amount of oil consumed in the States.

The firm also does what it can to reduce the weight of its product. "From an economic standpoint it just makes sense," said Byrne.

The American Chemistry Council (ACC), in its 18th annual Post-Con-

sumer Plastics Bottle Recycling Report, announced that plastic bottle recycling by consumers increased by 115 million pounds in 2007, an increase of 5.2 percent, to reach a record high of 2.3 billion pounds for the year. It was found that PET bottles collected increased by 124 million pounds; HDPE bottles collected decreased by 7.5 million pounds to 920.6 million pounds, reflecting decreases in bottle weight due to light weighting and the shift to using concentrated laundry products; and polypropylene bottle recycling totaled 17.6 million pounds.

The report also confirmed a continuing increase in the pounds of bottles collected for recycling each year since the industry survey began in 1990.

The recycling rate for plastic bottles rose slightly, but generally has remained constant, hovering at around 24 percent for the last several years.

"Plastics recycling continues to grow because people recognize that plastics are a valuable resource," said Steve Russell, managing director for ACC's Plastics Division.

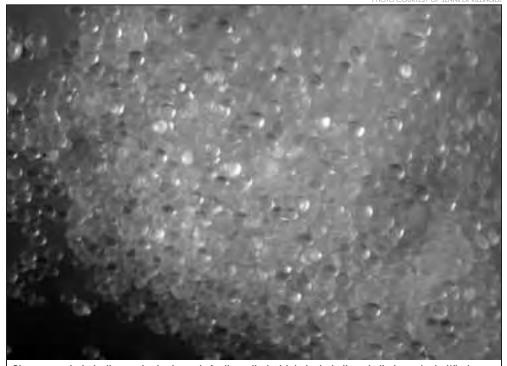
Over the last year, ACC has partnered with the California Department of Parks and Recreation and the nonprofit Keep California Beautiful to place over 500 recycling bins at 19 locations along the California coast, and it recently expanded its partnership efforts by teaming up with the California Department of Transportation, which will start placing recycling bins at heavily-trafficked rest stops this year.

"These numbers show us that consumers are increasingly interested in recycling plastic bottles," said Steve Alexander, executive director of Postconsumer Plastic Recyclers. "Valuable recycled plastic materials go on to become useful products, such as new bottles, carpeting, fleece jackets, and durable outdoor lumber."

In terms of barriers to increased plastic bottle recycling, the ACC noted that too many consumers continue to be unaware of the significant usefulness, demand and value of recycled plastic HDPE and PET.

According to the ACC report, "Data and experience show that plastic bottle recycling can be increased through sustained local education campaigns. Municipalities also need to understand that they too can benefit from the high prices being paid for bales of bottles, including revenue sharing to fund educational programs and other costs of collection.

"Another barrier is lack of sufficient access to recycling collection opportunities for products used away from home," added the report. "Consumer data continue to show that the public wants additional opportunities to be able to recycle at public venues, offices, recreational sites, schools and retail establishments. In 2007 the Association of Postconsumer Plastic Recyclers conducted workshops and webinars for municipal recycling coordinators to educate them on the existing markets for baled bottles, the **See FLAKE SUPPLY Page 7** 



Clean, recycled plastics are in short supply for those that wish to include them in their products. What supply there is goes to whomever is willing to pay the most.

Plastic separation

systems

**OUIPMEN** POTLIGH

#### by MARK HENRICKS

mhenricks@americanrecycler.com

In 2007 the United States recycling industry reprocessed 576,000 tons of plastic bottles, according to the Institute of Scrap Recycling Industries (ISRI). But, as plastics recyclers know, that doesn't mean recycling plastic is easy or simple. Plastic bottles may be made of any of several different types of material, including the plastics known by the acronyms PET, HDPE, PVC and others. That's a prob-

bottles of HDPE, PET and PVC. The systems are designed to process up to 10 bottles per second, employing precision air jets to eject selected bottles from the feed stream.

National Recovery Technologies' Multisort IR uses infrared sensing to detect specific polymers within a mixed stream of material. Also using air ejectors, it can achieve throughput rates of more than 10,000 lbs. per hour.

Its Multisort ES identifies materials by color, sorting bottles over a

> wide range of colors, tints, and transparencies. It can sort PET bottles by color, even separating out very lightly tinted bottles, as well as sorting PET from HDPE and natural from colored HDPE. It has throughput rates of up to 11,000 lbs. per hour.

National Recovery Technologies has long Magnetic Separation Systems sold to second-stage sep-

arating applications where plastics are sorted just before being reclaimed. Recently, Thomsen has seen more interest from customers in general waste separation such as municipal recycling facilities. Overall, he said, demand has remained healthy. "It's surprisingly good, considering the worrisome stories I hear from people in other businesses," he said. "We seem to be doing okay now."

At SiCon America in Venice, Florida, representative Norb Geiss said the company's polyfloat technology employs different fluid densities to separate plastics according to their density and produce 99 percent pure

These are less affected by dirt. For separation at yields of more than 98 is its E-Sort unit, which is for elecinstance, its VinylCycle systems sepa- percent. "We build units up to 12,000 tronics scrap. That equipment addressrate polyvinyl chloride from a mixed lbs. per hour which are turnkey and es some of the specific challenges stream of whole or crushed plastic include storage, feeding, drying and with separating plastic and other mate-

electronic control," said Geiss. "We can work with different densities to separate different grades of plastics." SiCon polyfloat systems are delivered as turnkey installations and include measures for preparing and drying the materials. They can be used for any hard plastics, as well as for films.

SiCon's most popular applications include separating plastics from household appliances and shredder residue as well as commercial plastics. Electronic scrap processing represents a growing market. "Increasing landfill cost and take-back regulations for electric/electronic devices are an advantage for our business," Geiss said. The United States is a developing market for SiCon, which is based in Germany. "We are looking forward to supporting the introduction of polyfloat into the US market," Geiss said.

At Magnetic Separation Systems, Inc. (MSS) in Nashville, sales director Felix Hottenstein said the company offers two types of separators for plastics. Its Sapphire module separates specific plastic resins or mixed plastics, as well as paper, from a materials stream. The company said typical removal efficiency is greater than 80 percent, while product purity exceeds 90 percent. Using a proprietary sensor to identify plastics, the Sapphire uses an upward firing air ejection to remove plastics from the stream. "In plastics processors like PET sorting plans, the Aladdin is normally the choice, because they need to sort out the green PET bottles from the clear PET bottles as well as remove PVC bottles," Hottenstein said.

MSS's Aladdin sorts material by plastic type and also by color. It can

create three output streams from one input. The Aladdin incorporates both full spectrum color and near infrared detection in a single sensor, and employs transflectance sensing to sort transparent and opaque objects at the same time. The Aladdin has a capacity of four to six tons per hour.

Magnetic Separation Satake USA, Inc. Systems' newest machine

rials from e-scrap. For instance, electronics scrap is usually much smaller in size, so it requires significantly higher resolution than for bottle sorting. "The technology is somewhat similar, but it has higher resolution," said Hottenstein.

Another difference is the larger number of polymers that must be detected and sorted in e-scrap in addition to the usual PET, PVC and HDPE used in bottles. "On the electronic scrap side, there's a whole variety of plastics that come into play," Hottenstein said. "So it's quite a bit more tricky."

#### Manufacturer List

Action Equipment Company, Inc. **Andrew LaVeine** 503-537-1111 http://www.actionconveyors.com

C.S. Bell Company **Dan White** 888-958-6381 www.csbellco.com

**Magnetic Separation Systems Felix Hottenstein** 615-781-2669 www.magsep.com

**National Recovery Technologies** John Thomsen 615-734-6400 www.nrtsorters.com

Polymer Recovery Systems, Inc. John Ayers 715-835-3233 x122 www.prsi.com

S+S Inspection, Inc. **Rich Wilgas** 716-297-1922 www.se-so-tec-usa.com

Satake USA, Inc. **Pam Loomis** 281-276-3600 www.satake-usa.com

SiCon America Norb Geiss 513-503-3749 www.en.sicontechnology.com



lem, because to efficiently process salvaged plastics requires that the stream be sorted by type as well as color. And that's where plastics separation systems come into play.

At National Recovery Technologies, Inc. in Nashville, engineering manager John Thomsen said one of the oldest and most persistent challenges in separating the different types of plastics is maintaining consistency in the way the material is prepared and presented to the sorting systems. "In these fast-acting machines, you can't have 100 lbs. of material show up in one short time interval, followed by another interval of zero material," said Thomsen. "It's always been an issue and it's one that we still have to address.'

Separating interlocked material, such as when two plastic bottles of different types are crushed together, presents another difficult problem. Much progress has been made, however, in cleaning bottles and other objects prior to sorting. That's important because dirt can foil sorting technologies that use optical detection.

National Recovery Technologies uses X-rays in some applications.

## **Markets**

■Continued from Page 1

demand for packaging incorporating recovered paper.

Both domestic and international demand for scrap paper is a leading economic indicator. Nearly every consumer and industrial product incorporates recovered fiber in one form or another, whether in packaging or in related printed information. When consumer spending slumps so does the demand for recovered paper.

"Last January we saw the economic downturn moving aggressively forward, coupled by the fact that domestic paper mills started to close plants for annual shutdowns and some remain closed for extended periods," said Wes Muir, director of corporate communications at Waste Management (WM), the largest residential recycler in North America. "We saw slowdowns from foreign paper mills, specifically in China, India and South America, which over the previous five years had been sucking up a lot of paper out of North America and driving up demand and prices.

"There's still very weak demand domestically across the spectrum of grades. In some grades we are seeing steady demand from export markets. It's hard to say that it's increasing demand but it's certainly steady demand," said Forman. "Prices in general are being influenced by a lack of generation in the states. So as the economy pulls back there's less paper coming out. With supply down and as demand increases, it puts pressure on prices to rise. We are seeing that especially in the corrugated markets," he added.

Wes Muir at WM had this to say: "We had large paper inventories for a while, but we were fortunate because we were moving a lot of our inventory through. In late 2008, we were doing some temporary storage of materials because the drop in price had been so precipitous. By the end of January and the beginning of February we had pretty much moved a lot of our material out of storage and reduced our backlog. We've seen a slight uptick in prices of materials since about January." As a result of the slowdown, WM has cut back on shifts, but has had few layoffs to date.

Of all the grades, old newsprint and groundwood grades that go into newsprint manufacturing have been hit the hardest, and are off as much as 30 to 40 percent.

Prices for recovered paper must continue to rise or governments will have to pump in stimulus dollars, tax incentives or grants in order to maintain a healthy recycling infrastructure. With curbside recycling programs becoming less profitable, local governments are being forced to re-examine their programs as they struggle to balance budgets. Recycling not only keeps these materials out of landfills, but also makes a positive contribution to papermaking by continuously building up a renewable supply of fibers that can be recycled over and over again, thereby significantly reducing the number of trees harvested.

Cities and towns that had been earning income from recovered paper and other recyclables to support recycling infrastructure and fund other programs have been hurt badly. Midland Park, New

Jersey, for example, with a population just under 7,000, is a microcosm of what is happening across the country due to the drop in commodity prices. Last December the town's recycling vendor was acquired by another company that announced that rather than pay for recyclables, it would start charging the town to haul it away - \$5 a ton for corrugated, paper and co-mingled. Fortunately, the town had no contract, and found a new vendor that would pay \$5 per ton for paper and haul away the commingled at no charge. "In 2008, our total income stream for recyclables, including scrap metal, were \$79,000. For 2009, we project that stream to drop to approximately \$9,000," said Michelle Dugan, borough administrator. "There are some positive things happening and I'm always the eternal optimist." She referred to the New Jersey Recycling Enhancement Act, a three dollar per ton grant which was recently reinstated that will be paid to municipalities to encourage recycling.

"Where we have long term commercial and municipal contracts, we are pretty much sheltered from commodity price fluctuations," said Muir at WM. "Where it hurts a lot of municipalities are those who didn't have long term contracts and were heavily weighted to spot market prices."

"It used to be that recyclers would pay governments for these goods," said Bruce Savage at the Institute of Scrap Recycling Industries. "But now governments have to pay recyclers. What was once a revenue stream is now an expense."

The best strategy for communities to maximize income from recycled paper in good times and hedge against spending money in down markets is producing consistently robust, separate, clean streams. A model is Orange County Solid Waste Management (OCSWM) in North Carolina that recently won AF&PA's 2009 Community Recycling Award. For 22 years this county has been aggressively promoting recycling, and the effort has paid off. "We are doing okay for two reasons. One, we accumulated credits with our paper broker during the high prices last summer and fall. When the prices dipped below zero we were able to work against that money. Our other saving grace is that we provide high



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quality. What goes in our paper bins has a very low contamination rate," said Blair Pollock, solid waste planner for OCSWM.

Orange County (population of 128,000) is lucky to have a highly educated, highly motivated community with an interest in environmental activity – home to UNC Chapel Hill, the flagship school of the University of North Carolina.

OCSWM has curbside pickup of two streams, commingled (cans and bottles) and mixed paper, but has enlisted public cooperation to keep old cardboard and corrugated (OCC) out of garbage. In fact, if OCC is visible in garbage it is not picked up and the collector leaves behind a message as to why. OCC is picked up with mixed paper weekly in town and biweekly in rural areas. It can be either in the mixed paper bin, or larger pieces must be cut down to 3 x 3 foot, limited to ten pieces a time and be placed next to the mixed paper bin.

Aside from deploying lots of well marked recycle bins throughout the county, they have a full time staffer to promote recycling and waste reduction. At each of ten drop-off centers, eight cubic-yard dumpsters with elongated slots for OCC keep it segregated from newspapers, magazines and mixed paper which are collected separately. "We have created a culture where recycling is the expectation and we are producing clean streams of paper that have optimal value regardless of the economy," Pollock added.

On the national scene, the American Forest & Paper Association (AF&PA) is lobbying hard in Washington to get stimulus money from the American Recovery and Reinvestment Act channeled to support paper recycling efforts. AF&PA represents the pulp, paper and packaging industries, wood product manufacturers and forest landowners – a sector that accounts for approximately 6 percent of the total United States manufacturing

GDP which is as big economically as the

automotive and plastics industries. The stimulus legislation appropriated \$3.2 billion for Energy Efficiency and Conservation Block Grants. Donna Harmon, AF&PA's CEO is urging the Department of Energy (DOE) to use a portion of that money to increase participation and efficiency rates for material conservation, including recycling. In a March 12 letter to DOE secretary Steven Chu, Harmon stated, "In the wake of our economic turndown, overall paper demand has declined and taken the value of overall fiber down with it. At a time when many cities are not receiving the high prices they once received for recyclables, every effort must be made to preserve the consumer behaviors and recycling infrastructures that made our current successes possible."

Scott Milburn, executive director of strategic communications at AF&PA, had this to say about paper recycling: "It's one of the greatest environmental success stories of all time, one that combines both environmental and commercial interests. The money made from recovered fiber helps underwrite our recycling infrastructure."

Since 1990 when the American paper industry established is first recovery goal to advance recycling, paper recovery has grown by more than 85 percent. Last year, the paper recovery rate grew to 57.4 percent as compared to 56 percent for 2007. AF&PA has set an industry goal to reach 60 percent paper recovery by 2012 and that may be achievable percentage-wise even if gross volumes fall lower due to the economic turndown.



by Donna Currie

# A Closer Look

#### **Plastic Revolutions** Ed Handy • 888-532-9274

In the beginning, Plastic Revolutions was an equipment manufacturing company, according to Ed Handy, the vice president and general manager. A prototype was built and used as a demonstration model, but "sales of the equipment never took off," according to Handy. What did take off was the recycling business.

Founded by John Hagen in 1991, the company now has about 50 employees and buys material in the North Carolina facility. Mate-



"all over the east coast" for process Plastic Revolutions mainly concentrates on processing high

rial comes in from municipalities, plastics manufacturers and container companies. While the company can and does process a variety of plastics, Handy said, "we are specialists" and high molecular weight HDPE is the company's focus. Handy said that the high molecular weight makes the material ideal for applications where the material has to be really tough, like chemical and food drums, underground pipes, and blow molded trash cans.

The company also processes one of the items that has become a recycling nightmare for so many municipalities - plastic film. Handy said that the problem with recycling the thin plastic bags is that there has to be someone local who can collect and bale the bags. "When it's compacted into bales, there's a market," he said

Plastic Revolutions granulates incoming plastic to a half-inch size, then washes and dries it. The clean grind is then sold. Some of the material gets processed further and is pelletized.

While Handy wasn't with the company at its inception, he has been there for ten years, and in that time he's seen a lot more material being labeled as recyclable that used to end up in landfills. For example, plastic underground pipe used to be considered too much trouble to clean, but now it's commonly recycled.

Handy said that waste drums and playground equipment are more commonly recycled as well, and there's a move now to find ways to recycle more types of plastic. "Every type of plastic is being studied," he said.

Before he worked for Plastic Revolutions, Handy worked for a company that made blow-molded plastic flowerpots from 100 percent recycled material. But at that time, the recycled label wasn't a selling point. Competitors bragged that they used virgin plastic in their flowerpots, so the recycling angle was downplayed where Handy worked. "I was in recycling before it was cool to do so," he said.

All together, Handy said that he's been in the plastic recycling business for 24 years, and before that, he was in the military. From his first recycling job, he said, "It got in my blood quick, and I really enjoy it."

Handy also enjoys the fact that recycling has become cool, and that people are so interested in participating in the process. While government regulations in North Carolina are doing things like making certain bottles taboo in landfills, Handy said that the big push is with the public. "I feel it and hear it everywhere," he said. "It's not just lip service."

Not long ago, Handy gave a tour of the facility to a community college group "and I guess they liked me," he said, since they asked him to speak at a ceremony honoring inductees into the college's honor society. The event was attended by a wide range of people including the faculty, students and families. "When you see the interest in recycling, it blows your mind," Handy said.

The interest wasn't just in the speech. Handy said, "I was mobbed like a rock star afterwards," with people asking all sorts of questions about recycling.

Plastic isn't the only thing recycled at Plastic Revolutions, though. The water used for washing the plastic is never sent out through the drains - every bit is treated and reused in the washing process. The company is also trying to reduce its carbon footprint by using a more efficient heating system, using eco-friendly light bulbs, and is also considering installing solar panels and skylights. "We're committed to being the greenest recycler in the country," Handy said.

While the economy is making things tough for everyone in the recycling business, Handy said, "I think for good companies that do it right, the future is very, very bright." He said that for some companies, the current sale price for plastic isn't covering their costs for processing and shipping, but "it don't get any tougher than it is right now. I think it's bottomed out." He expects an upturn before the end of the year.

As for the future, he said that the recycling business will be "an excellent job source" and will "create millions of jobs."

On a smaller scale, he enjoys the fact that by going to work every day, he's "made a difference on planet earth," and at the same time the company has provided good jobs for people who work there. "We don't even have anyone who hires people," Handy said, "because we don't have turnover."

#### **Covanta Energy** and Container **Recycling Institute** support bottle bill

Covanta Energy, a subsidiary of Holding Covanta Corporation, announced it is supporting legislation to promote passage of a national bottle bill.

According to the Container Recycling Institute, states with bottle recycling legislation recover more than 50 percent of containers as compared to a national average of 34 percent.

"Covanta Energy is working to support passage of national bottle bill legislation that would provide the necessary framework to increase container recycling across the country. This legislation would create a more sustainable solution than the current patchwork, stateby-state legislative approach while reducing energy consumption and greenhouse gas emissions," said Paul Gilman, Covanta's chief sustainability officer.

"Energy-from-Waste client communities typically enjoy a higher recycling rate than the national average because they have adopted integrated waste management solutions that include curbside recycling and recovering energy from what remains. As written, the bill would provide all consumers, particularly those without curbside collection, access to convenient beverage container recycling programs."

Gilman added that increasing the diversion rate of beverage containers will also allow Covanta to improve its Energy-from-Waste facilities' capacity to process non-recyclable waste."

#### Philadelphia rejects tax on recyclable plastic grocery bags

As a result of intense opposition from commercial and consumer advocates alike, a proposed \$.25 per bag tax on plastic and paper grocery bags failed on May 14 to pass the Philadelphia City Council. The tax could have added upward of \$400 annually to the average family's grocery bill.

The Progressive Bag Affiliates of the American Chemistry Council welcomed the outcome. "We are pleased that the City of Philadelphia chose not to take a punitive approach by taxing consumers during a recession," said Shari Jackson, director of the Progressive Bag Affiliates. "Plastic bags are fully recyclable and can be recycled at many major grocery and retail chains in Philadelphia and across the United States. Plastic bags don't belong in roadways, they belong in the recycling bin."

About 830 million pounds of plastic bags and product wraps were recycled in this country in 2007, representing an increase of 27 percent from just two years prior. Recycled plastic bags and product wraps are used to make many useful products, including durable backyard decks, home building products and new bags, to name a few.

Recently, the nation's four leading makers of plastic carryout bags announced a landmark recycling goal of 40 percent recycled content, including 25 percent postconsumer material, in all plastic bags by 2015. When fully implemented, the Full Circle Recycling Initiative will reduce greenhouse gas emissions by 463 million pounds, conserve enough energy (mainly natural gas) to heat 200,000 homes, and reduce waste by 300 million pounds every year.

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# In plastics, being green can make green

When it comes to conserving resources, there's no better strategy than recycling – using materials that have already been produced rather than depleting any resources to produce new ones.

There are few areas where recycling has a more dramatic effect than in the plastics industry. The vast majority of plastics can be recycled; the only question is how easily. Plastic recycling tends to fall into two categories: preconsumer and post-consumer. Most manufacturers focus on the pre-consumer variety; that is, utilizing the scrap generated during the manufacturing process and reincorporating it into their processes, an approach that has been in existence for quite some time.

While manufacturers have become increasingly active participants in the green game, distributors have spent most of their time on the sidelines. In fact, the part of the downstream usage chain where recycling can be most effective is at the distributor level. Furthermore, distributors can be an integral link in a process that can be referred to as the greenstream.

At Acrilex, the greenstream is defined as the multi-level model which "demonstrates eco-awareness and responsibility at all levels of the materials chain, including manufacturing of raw materials, distribution, utilization, consumption, reuse, disposal, and recycling. Deciding which processes take place at which level to ensure the most eco-friendly and responsible approaches to being green should, in fact, be determined by where a company fits within this greenstream. These approaches are still emerging, and the models for the greenstream are still evolving as awareness and cooperation grows."

Acrilex transforms plastic sheets and plastic products into parts and end products that are purchased by customers. In the process, waste is generated. Since Acrilex does not have a use for that waste internally, it would typically find its way into landfills, as it would with most distributors. This scrap can instead be reused as part of the preconsumer movement.

While the greenstream approach has a positive impact on the environment, there are other reasons to participate in the initiative. The excess material and scrap generated can be sold back to manufacturers (or to specialty plastic recycling companies, who will then sell it to the manufacturers themselves). In doing so, Acrilex created a new revenue stream. So recycling plastic scrap is not only environmentally responsible, but it



can translate to cold, hard cash. In other words, being green can lead to green.

It's not only scrap that can become an integral part of a distributor's greenstream process. Many distributors have excess inventory and damaged goods that manufacturers won't take back as product; consequently, the distributor is forced to dispose of this excess in landfills. By recycling it as scrap, the distributor can turn useless items into added revenue, while providing the manufacturer with much-needed raw material - all with virtually no environmental impact. It's a simple formula: every pound of plastic that you recycle is one less pound of raw material you need to utilize, resulting in one less pound of scrap in a landfill.

It should be noted that distributors are in a unique position to take advantage of both sides of the greenstream chain. Collecting their own scrap and selling it back to manufacturers or thirdparty companies is one side; but distributors also have the opportunity to position themselves as a resource to companies further down the supply chain.

For example, many end users, such as plastic fabricators, sign shops, display and fixture manufacturers, have scrap of their own that they may want disposed of, but either they do not know where to send it or, more likely, are not willing to expend the time and money to set up a comprehensive recycling program. As a value-added service, distributors can offer to pick up this scrap from resellers, end users, even their customers who need a way to get rid of their mistakes, prototypes, and excess materials. In doing so, the distributor not only acquires more scrap for sale (additional revenue), but further solidifies its business relationship with that company. What's more, by removing waste the customer would otherwise have to pay to dispose of, the distributor helps the customer become part of the greenstream, even if the customer company itself would not be considered "green" by manufacturing standards.

Of course there are some energy costs associated with the collection, sale and distribution of scrap (cost of gas to transport the material, labor to collect it, etc.), but these are minor compared to the potential revenue that can be generated and the positive impact on the environment.

Acrilex has a number of different levels of recycling, all stemming from

#### Flake supply ■Continued from Page 3

strong demand for goods, quality considerations, and suggestions for householder education.'

The report also addressed the plastic bottle reclamation industry, pointing out that the number of HDPE reclaimers stayed stable in 2007 as compared to 2006 with 29 companies.

"The number of smaller companies may vary year-to-year as industrial scrap companies change their business plans and start-ups and acquisitions continue," stated the report. tinues, as it has since 1996, to be sup-"The largest companies, processing over 30 million pounds annually, processed 81 percent of the HDPE reclaimed. The amount of HDPE processed by US HDPE reclaimers rose by 19.8 million pounds to 761.5 million pounds.

their dual role as both a plastic manufacturer and a distributor. As distributor, they handle multiple types of plastic. Some of their scrap – excess sheet scrap, the skeleton remains that come from CNC routers – are placed on skids, palletized and stored. Acrilex will warehouse this scrap until they can maximize the economics of shipping it out.

The final form of their scrap is plastic sawdust - predominantly acrylic - that is generated during the plastics to fabrication process. (This is an area which certainly requires more industrywide attention, given that over 80 tons of plastic sawdust that Acrilex generates each year is not getting into landfills). The material is accumulated by dust collectors and picked up by a manufacturer who utilizes it as filler/binder for the product they're extruding.

Further, as a manufacturer, unused waste monomer will be polymerized, or solidified, and resold as scrap for recycling. This eliminates the chemical hazard while providing material for recycling; no dumping is required. Additionally, excess sheets of Acriglas (damaged sheets or ones that cannot be sold) have an aftermarket in recycling or as inexpensive, unusual sheet goods overseas.

It should be noted that many companies will group all their scraps together and send them out en masse; that is, all dissimilar polymer scrap being lumped together in the same containers. This doesn't necessarily help the greenstream because at some point somebody is going to have to reprocess or re-sort it just to categorize it, thus reducing the overall value of the scrap. What's more, contaminants will often end up in the scrap material which can ultimately pollute the green stream. Therefore, one of the most critical things a distributor, or anyone recycling materials, can do is categorize their scrap.

"For HDPE bottle reclamation,

capacity utilization, as defined, fell

#### NewPage Anthem and Fortune now FSC chainof-custody certified

NewPage Corporation announced that Anthem<sup>®</sup> and Fortune<sup>®</sup> sheetfed products are now Forest Stewardship Council (FSC) chain-of-custody certified. FSC is an international, nonprofit organization that develops standards for responsible forest management, and accredits independent third-party organizations to certify forest managers and forest product producers to these standards.

"Chain-of-custody" is the traceable path logs take from the forest, through the pulp manufacturing process, to the paper mill, all the way through to the certified product. Compliance with this standard means that NewPage is engaged in best practices to obtain wood and pulp from legal sources while avoiding wood from areas where human rights have been violated, from high conservation value forests, from plantations that have been converted from natural forests, and from genetically modified trees. Chain-of-custody must be in place at all steps along the supply chain in order for labels or packaging to carry an FSC chain-of-custody label.

#### City of Philadelphia considers Styrofoam reduction legislation

Legislation aimed at reducing Styrofoam waste is up for consideration by the Philadelphia City Council.

Bill 090064 targets polystyrene, or Styrofoam. The material, most often utilized in disposable food service containers, may end up the target of a legislative ban. Instead of foam products, the law would require that biodegradable, compostable, or recyclable items be used instead, unless affordable alternatives can be found.

Food businesses would be required to state in writing that they are in compliance with the ban or face fines of up to \$500, depending on the number of offenses. The ordinance would take effect January 1, 2010.

from 69 percent in 2005 to 66 percent in 2006 and rose back to 69 percent in 2007," added the report, "as the calculated total washing capacity was adjusted downward slightly based on reports and the amount processed domestically rose. As in 2005 and 2006, the material supply in 2007 continued to be a major concern for both PET and HDPE reclaimers. The growth in domestic supply of baled bottles was insufficient to keep the US plastic reclaimers' plants full. The HDPE bottle recycling industry con

So until more PET and HDPE finds its way into the reclamation system, companies like Peninsula may have a long time to wait before they are able to reach 100 percent recycled content in their products.

ply limited."

A strong young man at a construction site boasted that he could outdo anyone in a feat of strength. An older worker grinned and said, "I'll bet a week's wages that I can haul something in a wheelbarrow across the street that you won't be able to haul back." The braggart agreed. The old man reached out and grabbed the wheelbarrow by the handles. Then, nodding to the young man he said, "All right. Get in."

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