



# American Recycler

NewsVoice of Salvage, Waste and Recycling

AmericanRecycler.com

## FOCUS: WASTE

# Safety a major concern in the waste and recycling industries

by MAURA KELLER

[mkeller@americanrecycler.com](mailto:mkeller@americanrecycler.com)

Perhaps no other single issue stands out in a waste company owner's mind more than the safety and security of employees. Good waste management employers are serious about safety. They provide safety training so that their employees can identify hazards, and they have a safety program to deal with safety issues as they arise.

According to Rush Akin, sales director, government at Lytx, a company that offers fleet safety solutions that can help detect the subtle signs of distracted and drowsy driving in real time. Being a waste or recycling driver is among the top 10 most dangerous professions in the U.S.

"It's every organization's goal to get their drivers home safely at the end of the day and to help protect the communities they serve," Akin said. "That means keeping them free from distractions while driving, and being aware of what's happening in and around their vehicle to avoid hazards in the pursuit of their duties."

"After spending over 25 years in the solid waste industry, a major issue facing the industry is driver distraction," said William Cole, lead safety advisor for Advantek Waste Management Services. "More and more people are driving, talking, texting, checking e-mails and doing other things rather than focusing on their surroundings. Driving takes 100 percent focus all the time on what is going on outside the vehicle. A driver never knows what may happen at any given second and needs to be ready to react to any unanticipated event, not looking down at a phone."

"The shortage of drivers is due to a lot of reasons – lower fuel prices, the steady economy, and online shopping just to name a few. These factors have also added more freight to the roadways," Cole said. "That, along with aging drivers and a new generation that is reluctant to enter the field, has contributed to driver shortage and this will continue to be an issue."

In addition to driver distraction and unqualified drivers, waste management collection drivers also face a myriad of hazards on the road, including being hit by careless drivers. As a result, more and more cities are passing "slow down" ordinances around recycling and waste collection vehicles.

This initiative, Slow Down To Get Around, was originally developed by the National Waste and Recycling Association (NWRA) in conjunction with



In-cab cameras and other technology have helped improve safety practices.

Rumpke Consolidated and McNeilus Companies.

Cole said the initiative was in response to a tragic accident involving one Rumpke employee who was killed and another accident involving a Rumpke employee who was severely injured. Both accidents were the result of careless driving.

As the NWRA explained, the goal of the program is to "remind motorists to drive more carefully when near waste and recycling collection vehicles. Being struck by motorists is a leading cause of death for waste and recycling collection employees, and with proper awareness, is completely preventable." In 2013, the association began its public awareness campaign by various public service announcements in several media markets. In addition, Slow Down to Get Around decals are available for haulers and local governments to affix to their trucks.

There is a big push from national organizations such as NWRA and the Solid Waste Association of North America (SWANA) to share what is working among the industry, to learn from companies that are performing well in safety and share those best practices with those that are not.

"Also, NWRA holds three nationwide stand downs each year to raise awareness in certain areas," Cole said. "For example, Safety Stand Down Back to School was held in late August make sure drivers in the solid waste industry were aware of more traffic on the road due to school starting and kids waiting for the school buses. These stand downs are a weeklong focus to raise awareness."

Lytx supports both SWANA's and NWRA's Slow Down to Get Around awareness programs.

"More specifically, we are the primary sponsor of SWANA's Slow Down to Get Around decal program, which encourage other drivers to take it slow around waste vehicles," Akin said. States like Virginia, New York and Oklahoma have passed laws. Some cities like our client, Fairfax, Virginia have promoted awareness of these new laws."

In July 2015, Virginia signed HB 1649 into law, joining eight other states that have enacted Slow Down to Get Around legislation. These states include Wisconsin, North Carolina, West Virginia, Florida, Georgia, Indiana, Michigan and Alabama. The new law, which carries a penalty of up to \$250, says drivers must reduce their speed to at least 10 miles per hour below the posted speed limit and pass at least 2 feet to the left of any stationary vehicle that is collecting trash or recycling.

"In addition to safety committees that review policies to keep them fresh and relevant, we've seen great success among our waste and recycling clients with driver recognition programs," Akin said. "These are creative, positive programs that help all fleet drivers understand what safe driving looks like. Nearly 100 percent of our municipality clients have driver recognition programs, and some, like the city of Mobile, promote the results with their communities to put a spotlight on what they're doing to make their communities safer."

See SAFETY CONCERNS, Page 4

## Food waste disposal impacts landfill space



### WHAT'S INSIDE

- A breakdown of the global nature of the recycling industry. Page A6
- Upstate Shredding to build multi-million dollar heavy media plant in Owego. Page A11
- Plastics recovery: Pilot program aims to increase automotive recycling. Page A16
- EPA issues actions to cut methane emissions from municipal landfills. Page B3

Events Calendar..... 4  
 Scrap Metals MarketWatch..... 15  
 Salvaging Millions..... 16  
 Classified Advertisements..... 20  
 Industry Profile: A Closer Look.... 22  
 Equipment Spotlight..... B4  
 New Product Showcase..... B6

PRSR STD  
U.S. Postage  
PAID  
Columbia, MO  
Permit No. 353

11.2016

CHANGE SERVICE REQUESTED



900 W. South Boundary, Bldg. 6  
Perrysburg, OH 43051-5235

# RECOVER THE TREASURE IN YOUR IRONY DROSS

**DIDION**

CAN SHOW YOU HOW TO

TURN THIS



INTO THIS



Ever wonder about the valuable metal going out the back door of your plant? Our customers are amazed with the money recovered from the material going to landfill or going to someone else. It's very difficult to imagine the hidden treasure while looking at a big, ugly dusty pile of slag or dross.

It's extremely exciting for our customers when they recognize the huge savings that go directly to the bottom line. Testimonials have reported savings in excess of 200%.

*Installations: Aluminum, Brass, Copper, Iron, Steel/Stainless, Zinc and Specialty Alloys*

BEFORE



AFTER



**DIDION**

INTERNATIONAL, INC.

**DIDION INTERNATIONAL INC.**  
Riverside Industrial Centre  
7000 West Geneva Drive  
St. Peters, MO 63376

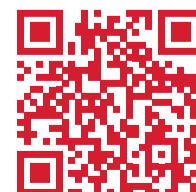
phone, 636.278.8700  
fax, 636.278.3155  
email, info@didion.com  
web, www.didion.com



<http://www.facebook.com/DidionInternational>



<https://twitter.com/#!/DidionInternati>



# National Waste & Recycling Association honors the very best in recycling innovation

The National Waste & Recycling Association (NWRA) honored innovators and leaders in recycling at the 2nd Annual Waste360 Recycling Summit in Austin, Texas.

Four awards and three honorable mentions were given to companies that have made substantial contributions to American recycling through partnerships, public education, innovations in recycling equipment and innovations in recycling facilities. Winners were selected by a panel of judges who are professionals in the waste and recycling industry as well as from other technology and education organizations. Twenty-one applications were received for the four awards.

“These awards honor the very best in the industry for excellence in educating the public about smart ways to recycle; creating innovative approaches to advance our work; constructing state of the art facilities to make waste and recyclables collection safer, faster and more efficient; excellence in recycling in the construction and demolition space; and revolutionary partnerships that help to protect the environment and increase collaboration within the recycling ecosystem,” said NWRA president Sharon H. Kneiss.

The Sustainability Partnership Game Changer award, the headlining category of the program, was given to Johns Hopkins University, School of Medicine Waste Diversion Program. Partners included: Johns Hopkins School of Medicine, ASI Waste and

Reduction in Motion. The JHU School of Medicine Facilities Management Department has focused on diverting waste and increasing recycling since 2006 increasing diversion by over twentyfold. To accomplish this, they proactively conduct routine waste sorts to determine what items can be diverted based on availability of processing and end markets. With a specific education and outreach program and feedback obtained from tracking and reporting, Johns Hopkins has successfully diverted approximately three million pounds annually. The honorable mentions in this category were awarded to Publix & Goodwill Industries Recycling, where both entities collaborated to increase landfill diversion rates by donating seasonal items from Publix stores to Goodwill to increase landfill diversion by donating seasonal items from Publix stores to Goodwill.

The Excellence in Public Education award was given to Emerald Coast Utility Authority’s (ECUA) Compost Program Outreach and Education. Recognizing that in order to produce a great compost product, getting a high quality input feedstock quality was very important. To do this, the ECUA started their public education campaign before the facility even opened. They established a four tiered education and outreach approach:

- The first part focused on quality in order to reduce contamination
- The second part introduced the compost facility

•Part 3 focused on internal staff and support to ensure that everyone understood the process

•Last, educating end user markets about the product to ensure that the compost would be utilized

Two honorable mentions were awarded to Waste Management’s “Recycle Often. Recycle Right.” Public Education & Outreach Program, and to the Solid Waste Authority of Palm Beach County’s Away Program.

The Recycling Equipment Innovator of the Year award was given to BinBisa Decorative Recycling Bins. BinBisa attempts to solve the issue associated with recycling in the bathroom. By providing a decorative recycler that takes up no more space than a standard bathroom trash bin, this innovation is designed to increase bathroom recycling. Surveys conducted by BinBisa demonstrate an increase in bathroom recycling as a direct result of using the produce.

The Recycling Facility of the Year award was given Republic Services Southern Nevada Recycling Center. Republic Services unveiled its Southern Nevada Recycling Center in December 2015. Billed as the largest and smartest residential recycling center in North America, this facility processes 70 tons-per-hour and includes smart systems that can make millisecond decisions using highly automated, touch-screen control systems. The building is made from 75 percent recycled steel and has 1,776 rooftop solar

panels to take advantage of Nevada’s abundant sunshine and provide approximately 15 percent of the facility’s power needs.

Two new award categories were added to the Waste360 Recycling Summit this year. First, the 2016 Construction and Demolition Debris Recycler of the Year has been awarded to Zanker Recycling of San Jose, California. Zanker’s new demolition recycling operation, which diverts 60 TPH, achieving an 86 percent recycling rate. The focus of the new facility was interior demolition that is generally not captured in other C&D recycling operations including sheet rock, wiring, carpet and vinyl flooring. The facility utilizes a series of drum separators that are able to adjust to the needs of variable material streams, while its negative air pressure creates a consistent in-feed while protecting workers from dust.

The second new award recognizes Excellence in Organics Recycling. The winner of this honor is Emerald Coast Utilities Authority’s Biosolids Composting Facility. This Biosolids Composting Facility provides outlets for two materials biosolids and residential yard waste. By creating new nationally certified compost from the feedstock, the Authority was able to convert a cost into a revenue stream. In addition, the product returns valuable nutrients back into the soil and contributes to the Authority’s goal of meeting the State of Florida’s 75 percent recycling rate mandate.

**SAVE \$\$\$!!! SAVE \$\$\$!!! SAVE \$\$\$!!!**

**QUICK & EASY RECOVERY**  
of  
**COPPER & ALUMINUM**



**EARN OVER 200% for CLEAN COPPER!**

- Strips 110 ft/minute
- Self feeding
- Easy to maintain
- Runs on 110 volts
- Adjustable wire guides
- 1 year warranty
- Manufactured by:

**Copper Wire Stripper Limited**  
888-419-3555  
www.copperwirestripper.com

**CWS Copper Wire Stripper**  
Special terms for rental stores Made in Canada

**COMPLETE LIQUIDATION**  
**SCRAP HANDLING EQUIPMENT**  
~ WILLIAM REISNER CORPORATION ~  
**FRI., DEC. 2<sup>ND</sup> @ 9:30 AM BOSTON (Clinton), MA**

**ADDRESS:** 33 Elm Street, Clinton, Massachusetts 01510

**NOTE:** After 90 successful years in business, the family has decided to liquidate this fine, upstanding, reputable company at public auction.

**HILITES INCLUDE:** HYDRAULIC PRESS SHEAR: Harris BSH-1605 (1600-ton), 7 MATERIAL HANDLERS: 2008 Cat M325D, (2)Fuchs RHL350, Linkbelt LS-5800C Series II, Linkbelt LS-4300C Series II, Linkbelt LS-4300SL, Linkbelt LS-4300C, 14 SCRAP RECYCLING EQUIPMENT: Guidetti PMG-N400(single shaft pre-shredder), Economy 127FS Vertical Baler, J.McIntyre 320 Hydraulic Alligator Shear, J. McIntyre 200B Hydraulic Alligator Shear, Gensco CSX0010 Wire Stripper, MA-Tech MDL56 Wire Stripper, (2)2013 Thermo Scientific Niton XL3T980 Handheld Metal Analyzer, (3)Mobil Torch Cutting Stations, Hustler Shaker Table(3ft.x12ft.), Shaker Table(5ft.x28ft.), Large Shaker Table, 2 HORIZONTAL BALERS: Harris HRB8 Two Ram, Harris TG1218, 5 AIR COMPRESSORS: Kellogg-American Horizontal(3-stage), Kellogg-American Horizontal(2-stage), IR U15H-SP(Horizontal), IR 15T(Horizontal), 2013 Husky Vertical Tank, 2 RUBBER TIED LOADERS: 2011 Kawasaki 70Z V-2, Kawasaki 65Z IV, 2 SKID STEERS: Bobcat 863, Bobcat 751, 5 FORKLIFTS: (2)2013 Clark C35, (2)Clark CGP25, Clark GCX40, BOOM LIFT: Snorkel TBA60(4x4), 6 WELDERS: Miller Dimension 652, Miller Bobcat 225, Hypertherm Max200 Plasma Cutter, Century 70 AC Arc, (2)Aircro Dip-Pak 200, SCREENING PLANT: Read CV90D, SWEEPER: Tennant 830, WATER TRUCK: 1981 IH 1854, 4 ROLLOFF TRUCKS: 2005 Mack CV713, Volvo/Autocar ACL64, Volvo/Autocar ACL64B, Volvo/Autocar DS64, 2 LUGGER TRUCKS: Mack CV713, Volvo/Autocar ACL64, 2 OPEN TOP TRUCKS: IH 4900, Ford 9000, 4 TRUCK TRACTORS: (2) Mack CHN613, Mack CH613, Volvo/Autocar ACL64T, FUEL/LUBE TRUCK: GMC 7000, PICKUP TRUCK: Ford F250XL(4x4), 3 FLATBED TRAILERS: 1999 East, 1999 Dorsey, 1989 Dorsey, 4 ROLLOFF TRAILERS: 2005 Galbreath, 1990 Atlas(40cu.yd. capacity), 1989 Atlas Tro-75-30(40cu.yd. capacity), Fruehauf(2-20cu.yd. containers), LIVE BOTTOM TRAILER: 2006 Steco SWO45100, 4 VAN TRAILERS: (3)Fruehauf(2-48ft., 32ft. van body), Strick(48ft., van body), LARGE QUANTITY ROLLOFF BOXES: Various sizes, RADIATION DETECTION SYSTEM: Radcom 3-Sided Truck Load Scanner, RAIL ROAD SCALE: Rice Lake Rail Boss In-Line, 4 PLATFORM SCALES: 2014 Rice Lake 420 Plus, Fairbanks In-Ground, Inscale LP7510(5,000lb.), East High Measuretek(2,500lb.), 2 TRUCK SCALES: (2)Fairbanks(10ft.x60ft.), 3 TRUCK PARTS & ACCESSORIES, 3 STORAGE BUILDINGS, ATTACHMENTS: Rubber Tired Loader: Flip Screen BL80, (3)Skid Steer: Bobcat Backhoe, New JBX 4000 48in. Pallet Forks, (2)New 12x16.5 12-ply Tires, 42 NEW SUPPORT EQUIPMENT, 64 SUPPORT EQUIPMENT.

FOR BID ONLINE TECHNICAL ASSISTANCE CALL (919) 595-2907

**MA LICENSE:** Wayne Chevrier #2065  
**ALEX LYON & SON**  
SALES MANAGERS & AUCTIONEERS, INC., BRIDGEPORT, NY 13030  
Phone: (315) 633-2944 • Fax: (315) 633-8010 • Syracuse, NY (Evenings) (315) 637-8912  
Go to WWW.LYONAUCTION.COM for Complete List, Descriptions and Pictures

# Whirlpool partners with How2Recycle

Whirlpool Corporation disclosed a partnership with standardized labeling system How2Recycle, which gives consumers simplified instructions on how to best recycle product packaging materials.

Whirlpool Corporation becomes the first appliance manufacturer to become a member of How2Recycle, building upon the company's commitment to offering consumers sustainable solutions for their home by facilitating responsible recycling

of product packaging.

With all the different types of materials on the market today, learning how to responsibly dispose of product packaging can be confusing for some consumers. However according to a recent consumer survey conducted by How2Recycle, 50 percent of respondents reported changing their behavior based off what they learned from the packaging labeling system.

This new partnership with

How2Recycle is part of Whirlpool Corporation's larger commitment to sustainability, including helping consumers in areas from energy efficiency to waste reduction.

Corporate sustainability and waste reduction is also a priority across Whirlpool Corporation's manufacturing and supply chain functionalities, with the company recently reaffirming its zero waste to landfill goal in every manufacturing facility across the globe by 2022.

## Safety concerns

■Continued from Page 1

What's more, in an effort to protect children throughout the communities they serve, Advanced Disposal created the Sam Safety Kids video and educational program. The animated video features Sam Safety showing kids how to stay safe when garbage and recycling trucks pass through their neighborhoods and even features a catchy song to help children remember the importance of staying clear from all collection trucks. While intended for young children, the message is appropriate for people of all ages. In addition, the Sam Safety Kids web site features activity

downloads, flyers, and educational materials to help further educate caregivers and children about being safe when waste collection vehicles are in the neighborhood.

Technology has made an impact on how transportation companies operate. From tracking the routes their drivers run, to billing at the time of delivery, technology advances play an increasingly important role in the transportation industry. Likewise, technology is dramatically affecting transportation safety as well. This new safety technology includes being able to insert safety devices that can counter a driver's moves and adjust the air on the braking system to help prevent rollovers.

The Lytx DriveCam program combines video capture of road incidents such as collisions, near-collisions, hard braking or hard swerving, data analysis of those events, and personalized coaching insights to improve driving behavior to help prevent those incidents.

As Akin explained, the results of this program are significant. In some cases, collision-related costs have been reduced by up to 80 percent.

"The DriveCam program helps identify the risk in fleets, and leverages the video and data to both help the driver improve, and to reward and recognize exceptional drivers," Akin said. "Sensor and camera technologies, such as Lytx's Unisys platform, have evolved to make it affordable for a fleet manager to have multiple camera views around their vehicle. Video is the best tool to bring clarity and certainty to incidents that take place while the vehicle is on its route, such as sideswipes, rear-end collisions, and more."

Of course, the issue of distracted driving – across all industries – will continue to increase unless there is some sort of legislation that totally prohibits the use of cell phones while driving.

"Companies in the solid waste industry will have to enhance existing training, develop ways to help the drivers deal with other drivers and distractions, find a way to recruit people into the industry with better pay and benefits and continue to share best practices among the industry," Cole said. "I'm sure technology will continue to play a role in areas such as truck design, sensor devices and more, to help reduce vehicle accidents."



**We're not just blowing smoke.**

**Advertising in American Recycler WORKS**

Call 877-777-0043 or e-mail [sales@americanrecycler.com](mailto:sales@americanrecycler.com) to receive our 2017 media kit.



**AR** American Recycler

NewsVoice of Salvage, Waste and Recycling

877-777-0043 Fax 419-931-0740

### Owner, Publisher and Editor

**ESTHER G. FOURNIER**  
[news@AmericanRecycler.com](mailto:news@AmericanRecycler.com)

### Editorial Focus Section Editor, Production and Layout

**DAVID FOURNIER, JR.**  
[david@AmericanRecycler.com](mailto:david@AmericanRecycler.com)

### Production and Layout

**MARY E. HILL**  
[mary@AmericanRecycler.com](mailto:mary@AmericanRecycler.com)

### Marketing Representatives

**MARY M. COX**  
[maryc@AmericanRecycler.com](mailto:maryc@AmericanRecycler.com)  
**MARY E. HILL**  
[mary@AmericanRecycler.com](mailto:mary@AmericanRecycler.com)

### Circulation Manager

**DONNA L. MCMANUS**  
[donna@AmericanRecycler.com](mailto:donna@AmericanRecycler.com)

### Writers and Contributors

**DONNA CURRIE**  
[dcurrie@AmericanRecycler.com](mailto:dcurrie@AmericanRecycler.com)  
**MARK HENRICKS**  
[mhenricks@AmericanRecycler.com](mailto:mhenricks@AmericanRecycler.com)  
**MAURA KELLER**  
[mkeller@AmericanRecycler.com](mailto:mkeller@AmericanRecycler.com)  
**RON STURGEON**  
[rons@rdsinvestments.com](mailto:rons@rdsinvestments.com)

### Production Offices

900 W South Boundary, Bldg 6  
Perrysburg, OH 43551-5235  
877-777-0043 fax 419-931-0740  
[www.AmericanRecycler.com](http://www.AmericanRecycler.com)

American Recycler is published 12 times per year, postage paid at Columbia, Missouri.

SUBSCRIPTIONS: Call our offices at 877-777-0043 or visit [www.AmericanRecycler.com](http://www.AmericanRecycler.com). US 1 year \$48; 2 years \$72.

© COPYRIGHT 2016 by American Recycler News, Inc. All rights are strictly reserved and reproduction in whole or in part is prohibited without prior written permission from the publisher.

Submission of articles, artwork and all photography must be accompanied by a self-addressed stamped envelope if a return of materials is wanted. Byline contributors' views should not be construed as representing the opinion of the publisher.

American Recycler reserves the right to edit any and all material submitted for publication. All Letters to the Editor must be signed and include a telephone number for verification. The editor of this publication does not accept responsibility for statements made by advertisers herein.

## Events Calendar

### November 1st-2nd

**NERC Fall Conference.** Sheraton Portsmouth Harborside Hotel, Portsmouth, New Hampshire.  
802-254-3636 • [www.nerc.org](http://www.nerc.org)

### November 9th-10th

**Canadian Waste & Recycling Expo.** International Centre, Toronto, Ontario.  
770-984-8016 • [www.canadian-waste-recycling-expo-us.messefrankfurt.com](http://www.canadian-waste-recycling-expo-us.messefrankfurt.com)

### January 23rd-26th

**COMPOST 17 Conference & Tradeshow.** Westin Bonaventure, Los Angeles, California.  
301-897-2715 • [www.compostingcouncil.org](http://www.compostingcouncil.org)

### March 6th-9th

**Association of Postconsumer Plastic Recyclers Membership Meeting, 2016 Spring APR Membership Meeting.** Hyatt Regency, New Orleans, Louisiana.  
202-316-3046 • [www.plasticsrecycling.org](http://www.plasticsrecycling.org)

## California Carpet Stewardship assessment to increase in 2017

The Carpet America Recovery Effort (CARE) has disclosed an updated assessment fee of \$.25 per square yard on all carpet sold or shipped in California, effective January 1, 2017. The rate is an increase from the previous assessment of \$.20 per square yard. The assessment is collected by the retailer from the consumer, and is then remitted to CARE by way of the carpet manufacturers.

"We are pleased that the California program is seeing a steady increase in recycled pounds this year and expects dramatic growth in incentive payouts beginning in 2017," notes CARE executive director Bob Peoples. "To meet financial obligations to make these payouts, it is necessary to collect additional funds through the assessment." CARE was pre-approved to implement this increase if deemed necessary, as approved by CalRecycle on January 26, 2016.

CARE employs the assessment funds for the following efforts:

- Ongoing subsidies to carpet recyclers and processors, to support these businesses at a difficult time for the recycling industry in general and the nascent carpet recycling ecosystem in particular. The subsidies help these businesses stay competitive in challenging economic times.

- A newly implemented grants program in 2016. To date, \$2 million in

grants have been approved to encourage investment in carpet recycling facilities and accelerate the development and marketing of products made from recycled carpet fiber. An additional \$500,000 grant program this fall will subsidize the public procurement of products made with post-consumer recycled carpet. One hundred percent of these dollars will remain in the State.

- Expansion of the carpet drop-off site program, with a goal of establishing at least one site in every county in California by July 2017.

- Continuing education/outreach efforts to carpet retailers, installers and consumers to encourage carpet recycling.

Since July 1, 2011, all California carpet manufacturers and retailers have been required under carpet stewardship law AB 2398 to add an assessment fee onto all carpet sold in the state. The law is designed to increase landfill diversion and recycling of post-consumer carpet generated in California. CARE administers the California Carpet Stewardship Program, which is charged with meeting the requirements for carpet recycling set by AB 2398. In 2015 alone, 103 million pounds of carpet was diverted from the California waste stream through the efforts of retailers, installers, manufacturers, recyclers and the California Carpet Stewardship Program.

## Scrap recycling is first link in manufacturing supply chain

The Institute of Scrap Recycling Industries (ISRI) celebrated National Manufacturing Day by highlighting the many positive contributions the recycling industry to the U.S. manufacturing landscape. In 2015 alone, more than 130 million metric tons of metal, paper, plastic, glass, textiles, rubber and electronics were manufactured in specification grade commodities by the U.S. scrap recycling industry.

"National Manufacturing Day helps highlight the vital role recyclers play in America's overall economy, and the variety of ways recycling is involved in one's everyday life," said Robin Wiener, president of ISRI. "As the first link in the manufacturing supply chain, the recycling industry provides a source of raw material to other manufacturers that is environmentally friendly compared to virgin material. In doing so, the industry has become a leader in economic output, job creation, resource sustainability, energy savings, and global trade."

The use of scrap dates back to the beginning of human existence itself. Since the dawn of civilization and the earliest attempts at manufacturing, humans have recognized the intrinsic value of scrap and the benefits associated with using and re-using existing

products to create new goods. As U.S. manufacturing ramped up and became more complex in response to society's expanding needs, scrap recycling took on even greater importance, adapting not only to market drivers, but also shifting national priorities in the context of finite natural resources.

The contributions of the scrap recycling industry to the U.S. economy include:

- Generating nearly \$17.5 billion in export sales to 160 countries;

- Directly and indirectly employing approximately 470,000 workers in 2015;

- Generating more than \$105.8 billion annually in economic activity;

- Drawing in more than \$11 billion in revenue for federal, state, and local governments; and

- Lowering energy costs by producing recycled materials that require less energy during the manufacturing process than virgin materials.

National Manufacturing Day, currently in its fifth year, occurs on the first Friday of October. It provides an opportunity for American manufacturers to showcase the potential the sector holds and promote interest in future manufacturing careers.

*I always wanted to be somebody, but I should have been more specific.*

## IT'S JUST A BAG, RIGHT?

Well, actually, it's more than that. Without a second thought, people throw away any and everything; car parts, bowling balls, mower blades, carpeting, clothing, dead animals . . . you don't even want to know.

Over the last three decades we've seen things. Weird things. If you've got the stomach for mixed waste processing, you can't afford a delicate shredder that throws up every time something chokes it. You need one designed for the unexpected.

To open the bag on reducing mixed waste, check out our video at [go.ssiworld.com/msw](http://go.ssiworld.com/msw)

The more experienced you get, the more questions you have. We always start with . . .

**WHAT NEEDS SHREDDING?®**

**SSI Shredding Systems, Inc.**

[www.ssiworld.com](http://www.ssiworld.com) | [sales@ssiworld.com](mailto:sales@ssiworld.com) | +1-503-682-3633 See every imaginable thing being shredded at [www.watchitshred.com](http://www.watchitshred.com)



# RIRRC and ARIA Energy win safety awards

The Solid Waste Association of North America (SWANA) announced that Rhode Island Resource Recovery Corporation (RIRRC) is the winner of its 2016 Biggest Safety Improvement award and Aria Energy as the winner of its 2016 Biggest Safety Innovation award.

Both safety awards highlight these corporations' profound commitment to improving employee safety through communication, best practices, increased company regulations, and accident review. These new safety awards mark the first time that SWANA has presented national safety awards, reflecting its renewed commitment to worker safety.

David Biderman, SWANA's executive director, noted: "It's an honor to recognize RIRRC and Aria Energy's safety programs, and I am very proud that they are the winners of SWANA's new safety

awards. The competition was very tough, as we received numerous excellent applications in both categories. Both companies deserve congratulations for their commitment to improvement and innovation." Biderman added SWANA is likely to expand its safety awards program in future years.

RIRRC was chosen as the 2016 Biggest Safety Improvement winner for their complete safety program redesign, which involved the hiring of a designated safety manager, employee education/training programs, employee safety incentives, and new incident review protocol.

"By letting them know that we value their safety first, employees realize that they are now a part of the team and strive to make sure they look out for themselves and their fellow employees," stated Robert Lough, RIRRC's safety officer.

Aria Energy was chosen as the 2016 Biggest Safety Innovation winner for their employee run safety initiatives that include the Safety Subcommittees, Employee Run Safety Committee, and the Safety Board, which have urged front line employees to drive the safety program, as opposed to top officials stressing the programs.

After enacting their new safety programs, both companies have had impressive declines in their annual accident rates. For Aria Energy, they went 285 days accident free and injury rates dropped from 5.64 to 2.57 in 2015, a 45 percent decrease. For RIRRC, their incident rate dropped from 17.94 to 7.28 in 2015, and employees' number of days from work dropped from 422 to 91 in just one year.

# Morbark adds international dealer in Alberta

Morbark, LLC has signed agreements with Equipment Sales & Service Limited and Van Bommel Machine Import BV to become Morbark® equipment dealers.

Based in Edmonton, Equipment Sales & Service Limited (ESS) is the exclusive Morbark dealer in Alberta, Canada, handling both tree care and industrial equipment. Founded in 1946, ESS is currently one of Canada's oldest and most established equipment companies. A private, family-owned business that specializes in heavy equipment sales, ESS has been named one of "Canada's Best Managed Companies."

# A breakdown of the global nature of the recycling industry

The Institute of Scrap Recycling Industries (ISRI) has released its fifth annual ISRI Scrap Yearbook, providing the most up-to-date, comprehensive information and statistics about the U.S. and global scrap industry. In addition to the many economic and environmental benefits covered, new this year is expanded information on the global portion of the industry, including increased data on trends and markets.

"Given the rising world population and increased urbanization, the Earth's limited natural resources, and the heightened awareness of the benefits of recycling and need for sustainable development, the globalized scrap market is an increasingly crucial component of the

health of the world's economy," said ISRI chief economist Joe Pickard. "Over the past year the global economy and scrap industry have confronted a number of challenges including slowing growth in China, lower world commodity prices, a strong dollar, transportation bottlenecks, and high regulatory costs. As history has shown, the scrap market serves as a leading economic indicator and despite the persistent challenges facing our industry, scrap recyclers remain resilient."

Statistical highlights from the Yearbook include:

- More than 130 million tons of scrap metal, paper, plastics, electronics textiles, glass, and rubber processed in

the U.S. and more than 800 million tons consumed globally;

- The U.S. exported more than 37 million metric tons of scrap commodities valued at \$17.5 billion to more than 150 countries;

- The value of U.S. exports increased by nearly \$7 billion from 2005 to 2015;

- Recovered paper and ferrous scrap represent the bulk of U.S. scrap exports by volume, combining for more than 31 million metric tons;

- Major export destinations for U.S. scrap last year included China (\$6 billion), Canada (\$2 billion), South Korea (\$1 billion), Turkey (\$930 billion), Mex-

ico (\$920 billion), and India (\$900 billion);

- Since 2000, net exports of U.S. scrap have made a positive contribution to the balance of trade of more than \$210 billion;

- Over 470,000 U.S. jobs directly and indirectly supported by the industry;

- Nearly \$106 billion in U.S. economic activity generated; and

- Approximately \$11.2 billion in federal, state, and local tax revenue collected in the U.S.

In addition, the book breaks down data by commodity and provides historical information on production, recovery and consumption; scrap trade flows; and scrap prices indexes.



## Size Reduction Solutions

Granulators • Shredders • Pulverizers • Pipe Grinders



Choose from a wide range of standard equipment to solve a specific problem or let us custom design a size reduction system to satisfy all your application requirements. From advice to design to installation and start-up, we guide you every step of the way. Talk to an application specialist today to discuss your recycling system needs.

888.612.7774 [www.herboldusa.com](http://www.herboldusa.com)  
[info@herboldusa.com](mailto:info@herboldusa.com)

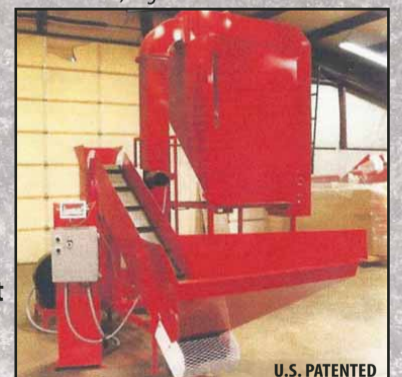


**Taylor Machinery Corp.**  
 MADE IN AMERICA **606-521-6432** Lancaster, KY

### ALUMINUM CAN BYLINE

Cans are forced into the high impact chamber where water, dirt, sand and paper are exhausted clear before they arrive at the scale. Accommodates can flattener/blowers and densifiers, regardless of make & model!

- Conveyor with magnetic separator
- High impact separation chamber
- Digital scale
- Handles all large beverage containers
- Scales can be used to weigh other nonferrous items
- Adjustable height
- Layout is reversible for any floor arrangement
- Stop paying for water, dirt, sand, paper, etc.
- Clean cans before they go to the scale!



### RD-16 STATIONARY ALUMINUM CAN DENSIFIER

- Electric
- Runs on 220 single-phase OR 3-phase power
- Magnetic separator
- Oil cooler for continuous use
- Shear bar for cutting aluminum
- Produces approx. 35 lb. bales of cans that measure 16" x 14" x 12"
- Approximately 600 lbs. per hour
- Built with high quality components



**MOBILE VERSION AVAILABLE**

# Pennsylvania authority awarded for reuse of glass

The Pennsylvania Recycling Markets Center, Inc. (RMC) recently honored the Northern Lancaster County Authority (NLCA) of Denver, Pennsylvania with the 2016 William M. Heenan, Jr. Recycling Markets Development Award for its commitment to creation of new markets for recycled color-mixed glass.

RMC recognized the use of recycled glass as a growing medium for the reed bed filtration system at the Authority's Beam Road Wastewater Treatment Plant. To RMC's knowledge, the plant is the first location to use sharp-free, manufactured recycled glass aggregate for this purpose in the U.S.

A reed bed or constructed wetland is essentially a type of water filtration system that mirrors the way natural wetlands break down waste in water and filter out impurities. Wetland reeds, specifically Phragmites australis, are cultivated in a recycled glass aggregate filter bed where the plant roots and natural microbial processes turn wastewater solids into treated water and benign solids. Free of chemicals and odors, these beds have been proven to be both cost-effective and energy-efficient, and significantly reduce or even eliminate the need for disposal of the solids. Reed bed systems have been shown to reduce the volume of solids by as much as 90 percent.

"Typically, the growing media for reed bed wastewater filtration is a very porous, fine aggregate, such as sand," said Jason Coyle, plant superintendent for NLCA. "Our sand was 20 years old and had broken down over time. As a planting bed, recycled glass aggregate that is manufactured to a uniform, sharp-free specification, has been demonstrated in other

countries. With technical input from the RMC, we were interested in bringing it to Pennsylvania."

Originally developed by the Max-Planck Institute of West Germany and the Netherlands approximately 30 years ago, the recycled glass process has been approved by the U.S. Department of Environmental Protection, and has been used in on-lot sand mound septic systems for about a decade. NLCA is currently using 800 tons of processed, crushed, size-graded and color-mixed container glass, obtained from Cogle's Recycling, Inc. of Hamburg, Pennsylvania.

The NLCA wastewater treatment plant was constructed in 1979 and upgraded in 2013 in compliance with the Chesapeake Bay Tributary Strategy. In order to be in compliance with the Chesapeake Bay Tributary Strategy, the plant diverts significantly more solids to the reed beds than in previous years. This, along with competitive pricing for the sharp-free, recycled glass aggregate, made the decision to use it realistic.

"Proper processing of solids is a major issue faced by wastewater treatment plants such as NLCA's plant, especially those who require compliance with the Chesapeake Bay Tributary Strategy" said Robert Bylone, RMC president and executive director. "What they've been able to do is take an existing treatment method and build on its sustainability by using a recycled-content product. For these reasons, and for the courage of the Northern Lancaster County Authority to pioneer recycled glass aggregate for this use, we are proud to recognize them with the William M. Heenan, Jr. Recycling Markets Development Award."



RMC recognized the use of recycled glass as a growing medium for the reed bed filtration system at the Authority's Beam road wastewater treatment plant.

The 2016 Reed Bed Upgrade was a win-win for all parties involved. Fred Ebert, president, Ebert Engineering, Inc., NLCA's consulting engineer; Jason Coyle, NLCA superintendent; Scott Davis, president, Constructed Wetlands Group; and Wayne Bowen, recycling program manager, Pennsylvania Recycling Markets Center combined technical knowledge and research to bring the successful project together. Using Cogle's Recycling Inc.'s manufactured recycled glass aggregate saved thousands of dollars of freight expense compared to hauling the nearest available sand from Delaware or Maryland. Donald Kellenberger, of Kellenberger Excavating in Spring Township, said final grading of the recycled glass aggregate was easier than sand. Kellenberger observed that it held its shape and position better than the sand. This ease of

installation resulted in significantly less time to complete installation.

The Northern Lancaster County Authority was the first Reed Bed Biosolids Treatment System in Pennsylvania. With over 80 Reed Bed Systems treating biosolids in Pennsylvania, the Authority has opened a door for using recycled glass both here and across the nation.

The William M. Heenan, Jr. Recycling Markets Development Award is the only award of its type given annually in Pennsylvania, and is named in memory of William M. "Bill" Heenan, Jr. Heenan, a lifelong international ambassador of the recycling industry who was instrumental in supporting the Pennsylvania Department of Environmental Protection to initially vision and fund inception of the RMC.

## TRIED, TESTED, PROVEN.

Here today,  
tomorrow and years  
to come for your  
recycling equipment  
needs.



R.M. Johnson Co. • Annandale, Minnesota  
800-328-3613 | 320-274-3594 | Fax: 320-274-3859  
EZCrusher.com | davev@ezcrusher.com

ESTABLISHED  
IN 1971

davev@ezcrusher.com

# Covanta SEMASS wins 2016 SWANA Excellence Award

Covanta SEMASS, the owner and operator of the Southeastern Massachusetts Resource Recovery Facility (SEMASS), was recently recognized with the Solid Waste Association of North America's (SWANA) 2016 Excellence Award in the waste-to-energy category. Covanta SEMASS received the Silver Award during SWANA's annual conference.

For over 25 years, Covanta SEMASS has provided reliable and sustainable waste management to Southeastern Massachusetts, Cape Cod and Boston-area communities. Located in West Wareham, Massachusetts, the energy-from-waste facility annually converts approximately one million tons of municipal solid waste into enough electricity to power more than 75,000 homes in the region.

"The recipients of the SWANA Excellence Awards represent the best solid waste management practices in North America today," said David Biderman, SWANA executive director and chief executive officer.

Energy-from-waste facilities like Covanta SEMASS provide a sustainable

and safe alternative to landfills, recycle metal and reduce greenhouse gases. Since 1990, the facility has protected the environment and the economy by:

- Saving 245 acres of land from being developed as landfills;
- Recovering 1,052,000 tons of metals for recycling;
- Generating 15,000,000 megawatts of electricity, the equivalent of powering 1,300,000 homes for one year.

In 2007, Covanta SEMASS was recognized by the American Society of Mechanical Engineers for upgrades to the plant's controls system and propane tank collection system. The facility also provides local communities with safe destruction of unwanted pharmaceuticals through its Rx4Safety program, which helps deter prescription drug abuse and protects waterways and drinking water from pollution.

In addition, Covanta SEMASS has worked with the Cape Cod Cooperative Extension's (CCCE) Hazardous Materials Program, helping to properly dispose and recycle over 1,800 pounds of mercury thermostats and other items.

# Clynk expands into New York

Clynk, a Maine-based bottle redemption and recycling company, plans to double in size.

In partnership with Hannaford Supermarkets, the company will expand beyond Maine's borders and open 51 new Clynk drop locations across the greater Albany and Schenectady areas of New York.

Clynk has developed a patented, convenient bottle return system that eliminates waiting in line and separating containers by material type. Customers simply fill their recyclable Clynk bags with redeemable containers of any material type and then leave their filled bags at a designated drop location at participating Hannaford stores. Within two business days, Clynk processes the returned bags and the deposit refunds are available in the

customer's private Clynk account. These funds can then be withdrawn for cash or groceries whenever the customer decides.

Clynk is a bottle redemption system in Maine and one of the fastest growing bottle recycling services in the country. Today, the company operates in 49 Hannaford supermarkets in Maine, and has processed more than 600 million containers since inception. In addition, Clynk has licensed its patented technology in both Oregon and New Brunswick, California.

Clynk's revenue is generated from the fee bottler's pay for the collection process and not from its customers. After receiving 10 free bags at sign up, the only cost to its customers is the purchase of additional Clynk bags that are designed to be both inexpensive and recyclable.

# America Recycles Day – How can you get involved?

America Recycles Day (ARD) has been the only nationally-recognized day dedicated to promoting and celebrating recycling in the U.S. since 1997. Every year on and around November 15, thousands of local event organizers mobilize throughout their community to educate millions of people about recycling within their communities.

This year, the National Recycling Coalition is working with Keep America Beautiful (KAB) to spread awareness of what can be recycled, and how to recycle it correctly, in celebration of America Recycles Day. NRC and KAB are inviting others to plan their own ARD event by taking advantage of the wide variety of tools and

resources KAB offers to make event planning easy and successful.

"America Recycles Day provides the encouragement and 'know how' to make recycling a common practice every day of the year," said Brenda Pulley, senior vice president, recycling, Keep America Beautiful. "We invite you to host an event in your community – invite your family and friends from work, school, your neighbor to participate in America Recycles Day and to take the #BeRecycled Pledge in a collective national effort to improve recycling in our country."

Events can be scheduled at any time during the fall leading into the official America Recycles Day.

# Suez and TerraCycle join forces

Suez is partnering with TerraCycle and acquiring 30 percent of its activities in Europe to develop collection and recycling programs in Belgium, Finland, France, the Netherlands, the UK and Sweden.

The partnership brings together TerraCycle's collection programs and SUEZ's expertise in waste recycling and recovery. It will offer individuals, businesses and

municipalities new solutions for recycling waste that was previously not recyclable in order to transform it into new secondary resources.

TerraCycle is a company that develops selective collection systems for the recycling of more than 100 specific hard-to-recycle waste streams currently not handled by traditional recycling channels.

## NEW CM HYBRID SHREDDER For All of Your Shredding Needs

### Is Your Shredder Not Cutting It?



Free testing in our new lab!

### NEW Replaceable Knife Inserts For Multiple Applications

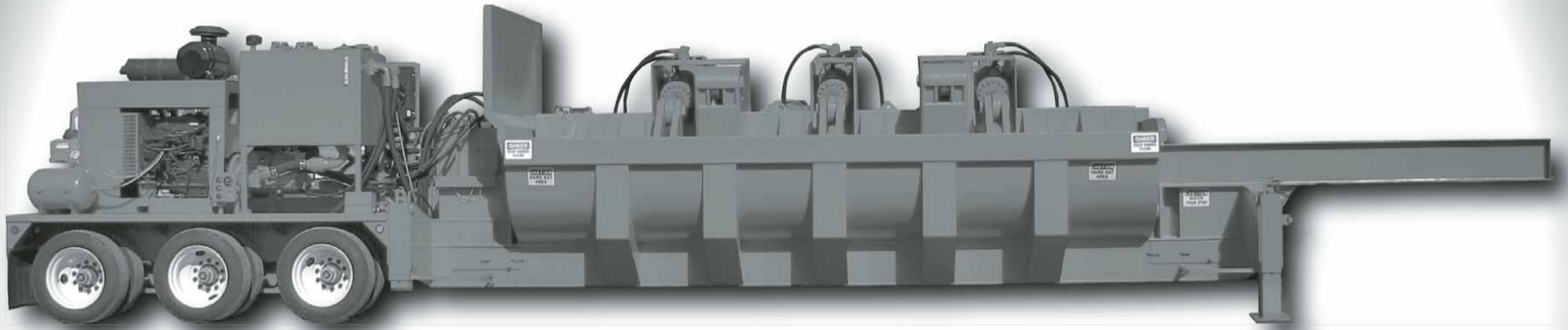


Improved knife materials cut better and last longer  
Resharpenable/reusable knives for multiple uses  
Reduces knife costs and downtime

Be sure to check out our NEW website! [www.cmshredders.com](http://www.cmshredders.com)  
(941) 755-2621 - (800) 848-1071



# IRON PACK BALER



Can You Spare  
**ONE**  
Minute?

That's all the time you'll need to bale a car in the Iron Pack Baler! The Iron Pack Baler is a unique portable baler that covers all aspects of baling your material. It has *unbelievable* capabilities for a mobile machine.

This baler will log full size automobiles and white goods and is also capable of producing #1 and #2 bundles. High pressure, high volume hydraulics and digital electronic controls put this machine on the leading edge of technology.

**BALE  
FULL-SIZE  
AUTOS!**

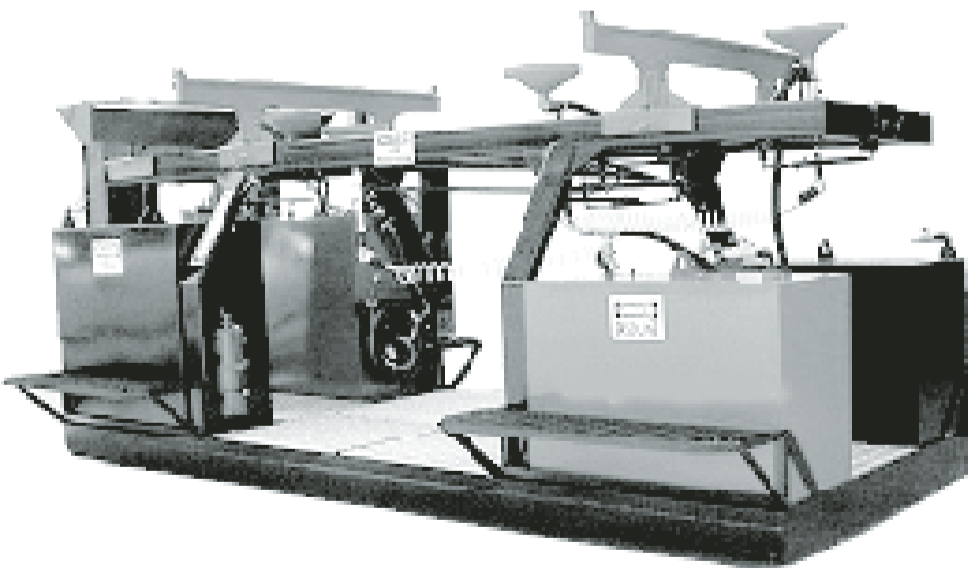
**VISIT IRONAX.COM**

Toll-free 877-247-6629  
Fax 478-252-9030  
Wadley, Georgia

# IRON AX

Iron Ax, Inc.  
Website: [www.ironax.com](http://www.ironax.com)  
E-mail: [ironax@ironax.com](mailto:ironax@ironax.com)

## The Enviro-Rack



**AUTO FLUID REMOVAL  
& DISMANTLING STATION**

**Complete fluid removal in less than 5 minutes!**

**IRON AX SHEAR PACKAGES**

All shears feature 360° continuous rotation.



**CHECK OUT OUR USED EQUIPMENT AT IRONAX.COM**



## PAPER

# New technology adopted at American Eagle Paper Mills



Overcome, adapt and press on; that is just what American Eagle Paper Mills (AEPM) has done with their new boiler project. The latest technology was unveiled at the new AEPM warehouse.

Mike Grimm, AEPM's president and chief executive officer, gave an overview of the Mill's evolution, its history, and its profound impact on the community.

The new Babcock and Wilcox natural gas boiler replaced the old, 1957 coal-stoker fire boiler. The \$8 million boiler was an update to technology as well as the systems of the mill. The new boiler eliminates continuity risks, ensures compliance and cuts operating costs. The boiler will solidify the Mill's mission of fostering a better environment by:

- Reducing annual greenhouse gases by 124,345 tons
- Eliminating annual coal burn requirements by 70,000 tons

- Eliminating annual land filling coal ash of 10,000 tons

- Reducing overall annual emissions by 70 percent

- Reducing annual water withdrawal from local streams and rivers by 82 percent

- Reducing daily water withdrawal by 4 billion gallons a year

- 120 percent growth in recycled cut size market in the past two years

In addition to the boiler, AEPM installed and built a new \$3.5 million 50,000 ft. warehouse and installed 2 cut-sized copy machines that cost \$2.5 million. The overall updates to AEPM will assist in American Eagle Paper Mills' continued success and overall, the newly instated technology was nearly a \$15 million capital investment over the past 3 years.

## FSC honors International Paper

Forest Stewardship Council (FSC) recently recognized International Paper with an FSC Leadership Award for forest certification commitment and program innovation. Winners were selected by a jury panel of professionals, FSC staff and board members.

International Paper was recognized for its innovative U.S. FSC certification strategy to increase the amount of FSC certified fiber used in packaging, pulp, and paper products. International Paper

increased the amount of FSC certified fiber by developing its own management group - Certified Forest Management LLC (CFM LLC).

As a result of International Paper's efforts with CFM LLC and the creation and support of International Paper-supplier based FSC groups, the company has influenced the growth of more than 1 million acres of FSC lands in the U.S. and currently supports 40 suppliers who have FSC Chain of Custody certificates.

## RUBBER

# Nine out of ten scrap tires recycled or reused

Scrap tire piles have declined by more than 93 percent in the past two decades, according to a report issued by the Rubber Manufacturers Association (RMA), the national trade association for tire manufacturers in the U.S.

Of the more than 1 billion stockpiled scrap tires that existed in 1990, only approximately 70 million remain. Approximately 70 percent of the remaining tires are stockpiled in just two states – Colorado (31 million) and Texas (17 million). Seven additional states – Arkansas, Illinois, North Carolina, Ohio, Pennsylvania, Virginia and Washington – account for an added 12 million tires combined.

Cleaning up piles has taken on a new urgency with the threat of the mosquito-borne Zika virus. Abandoned tires are a fertile mosquito breeding ground due to the ability to collect water, retain heat and offer protection from predators.

"Effective state scrap tire management laws and programs advocated by RMA have produced a remarkable environmental success story," said Anne Forristall Luke, RMA president and chief executive officer. "Equally impressive is that nearly 90 percent of annually generated scrap tires are consumed in an end use market."

The top end use markets for tires include tire-derived fuel (48 percent), ground rubber (26 percent) and civil engineering uses (7 percent). Tire-derived fuel or TDF is used primarily by the cement industry as a supplemental fuel due to its high BTU (heat) content. Ground rubber

markets include mulch, rubber modified asphalt, sport surfaces such as athletic tracks and some limited use in new tire manufacturing. Civil engineering uses include tire aggregate as a replacement fill material for light rail vibration dampening, road embankments and other uses.

"More than two decades of successful scrap tire management have produced value-added products that today consume more than 200 million tires annually," said Forristall Luke. "The dramatic reduction in scrap tire piles has reduced the threat of significant environmental harm caused when tire piles catch fire or sit and become mosquito and vermin breeding grounds."

Luke says that an ongoing challenge is to maintain the achievements in stockpile reduction and market development as states reassess priorities and budgets. States that become complacent after many years of successful management and shift funds raised from state tire fees can risk an increase in illegal tire piles and reduced funding for cleanup of abandoned piles.

"States that have passed laws with dedicated funding need to remain vigilant and protect programs to prevent a resurgence of scrap tire problems," Luke said. "A great deal has been accomplished through working partnerships between state policymakers, recyclers and the tire manufacturing industry. Our shared goal should be zero stockpiles and a commitment toward a cleaner environment and a vibrant, growing scrap tire market."

## Albertans recycle 100 million tires with recycling program

Alberta's tire recycling program has reached a significant milestone. One hundred million tires have been recycled since the program's inception in 1992.

Alberta has one of the first tire recycling programs in Canada. It is very successful, with approximately six million tires recycled annually.

"Albertans, municipalities, tire and vehicle retailers and the province's recycling industry should be proud of this achievement and their contribution to eliminating tires from landfills and stockpiles. They have all played a key role in having those 100 million tires recycled into products such as sidewalk blocks, roofing tiles and playground surfaces," said Bob Barss, chairman of Alberta Recycling.

There are 350 collection sites across the province set up by urban and rural municipalities and First Nations and Metis Settlements that accept tires for recycling. Since 2000, Alberta Recycling's municipal grant programs have provided over \$12 million to communities.

The recycling of 100 million tires was celebrated in Lethbridge at the grand opening of the new playground at

Gilbert Paterson Middle School which was attended by Minister Phillips, MLA for Lethbridge-West, and Lethbridge-East MLA Maria Fitzpatrick, as well as other local dignitaries.

Rubber crumb made from scrap tires was used for the playground surface, a decision that Rebecca Ash, president of the Gilbert Paterson Tiger Society, said was easy to make.

Tire recycling facts in Alberta:

- Over 100 million tires have been recycled in the province since the program began in 1992.

- Albertans recycle six million tires annually.

- Many innovative Alberta companies are currently manufacturing a variety of recycled tire products.

- Environmental fees range from \$4 on car and light truck tires to \$9 on large truck tires, and up to \$200 for large industrial tires. The fees are collected on the sale of new tires. The funds are used to manage the provincial tire recycling program, with almost 85 percent used to help collect the tires from every part of Alberta and process them into recycled tire material and products.

# AWS

American Weigh Scales, Inc.  
Norcross, GA



Legal For Trade  
**NTEP SCALES**

Use Promo Code **AGRI** for a special discount!

770-542-0230 | mail@awscales.com

Office hours: M-F, 9am - 6pm EST

[www.scales.net](http://www.scales.net)

## METALS

### Upstate Shredding to build multi-million dollar heavy media plant in Owego

Upstate Shredding is constructing a new heavy media plant in Owego with the assistance of a \$1 million New York ESD grant awarded earlier this year from the State of New York. The Southern Tier was one of three regions awarded \$500 million in \$1.5 billion Upstate New York revitalization funding. The \$500 million is the largest infusion of economic development ever in the region.

The project plans for a capital investment of \$7.5 million, all of which will be privately funded beyond the \$1 million dollar grant, and would create approximately 25 new full time positions in the Southern Tier region. The new dry media plant contains state-of-the-art processing technology that will further process zorba, a shredded mix of nonferrous metals consisting primarily of aluminum generated by eddy current separator or other segregation techniques, to separate out the aluminum from the heavies (copper, brass, zinc, and stainless).

Upstate Shredding – Weitsman Recycling will feed the media plant with its two company owned shredders in Owego, New York and New Castle, Pennsylvania and will also be buying material from outside sources throughout North America. The new plant is

scheduled to be fully staffed and operational in late December.

The plant will be enclosed in a new 20,000 sq.ft. building which will be built at 1000 State Route 434 in Owego, the former 3.5 acre site of 84 Lumber that Weitsman purchased earlier this year. The technology was purchased from SGM Magnetics, a North American leader in magnetic and sensor technology specializing in ferrous and nonferrous metal separation. SGM Magnetics will be supplying a complete dry media plant for upgrading zorba sized between .75" to 5".

The system is designed for up to 15 tons of zorba per hour, separating the light metals (aluminum) from the heavy nonferrous metals. The media plant will be one of only a few operational in the U.S. This state-of-the-art equipment will take Upstate Shredding's single zorba product and produce four high quality commodities: twitch, circuit boards extracted by color sorting technology, aluminum and a heavies package.

In addition, Upstate Shredding is installing a separate media plant at the same location in order to sort the .75" and under fraction of zorba which uses an alternate technology.

### Import market share at 25 percent in September

Based on the Commerce Department'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 September totaled 2,846,000 net tons (NT). This was a 7 percent decrease from the 3,066,000 permit tons recorded in August and a 5 percent decrease from the August preliminary imports total of 2,989,000 NT. Import permit tonnage for finished steel in September was 2,090,000, down 9 percent from the preliminary imports total of 2,307,000 in August.

For the first 9 months of 2016 (including September SIMA permits and August preliminary data), total and finished steel imports were 24,808,000 NT and 19,691,000 NT, down 20 percent and 22 percent, respectively, from the

same period in 2015. The estimated finished steel import market share in September was 25 percent and is 25 percent year-to-date (YTD).

Finished steel imports with large increases in September permits vs. the August preliminary included sheets and strip galvanized electrolytic (up 82 percent), oil country goods (up 20 percent) and sheets and strip all other metallic coatings (up 15 percent). Reinforcing bars (up 12 percent) had a significant YTD increase vs. the same period in 2015.

In September, the largest finished steel import permit applications for offshore countries were for South Korea (288,000 NT, down 14 percent from August preliminary), Japan (161,000 NT, down 9 percent), Turkey (159,000 NT, down 12 percent) and Germany (113,000 NT, down 12 percent).

### August steel shipments up

The American Iron and Steel Institute (AISI) reported that for the month of August 2016, U.S. steel mills shipped 7,542,605 net tons, a 2.6 percent increase from the 7,352,698 net tons shipped in the previous month, July 2016, and a 1.0 percent increase from the 7,470,120 net tons shipped in August 2015. Shipments year-to-date in 2016 are 59,033,706 net tons,

essentially unchanged from shipments of 59,042,310 net tons in the first eight months of 2015.

A comparison of August 2016 shipments to the previous month shows the following changes: hot dipped galvanized sheets and strip, up 11 percent; cold rolled sheets, up 6 percent, and hot rolled sheets, up 2 percent.

# Recyclable

# Revenues

Model B400B  
Briquetter

**Conversion of reclaimed scrap & waste increases your resale profits.**

K.R. Komarek's has a century of experience in profitable conversion of reclaimed materials. This is proven compaction and briquetting know-how you can use to increase the resale value of your waste metal.

Prove it to yourself. Call Komarek today at 847.956.0060,  
or email us at:

**[info@komarek.com](mailto:info@komarek.com)**

Shaping  
the Industry

**KOMAREK**  
Briquetting & Compacting  
Systems

[WWW.KOMAREK.COM](http://WWW.KOMAREK.COM)

548 Clayton Ct. • Wood Dale, IL, 60191 USA T: 847.956.0060 • F: 847-956-0157 • E: [info@komarek.com](mailto:info@komarek.com)

# DEALER • NEW • USED EQUIPMENT FINANCING



## 2011 PELLENC M1600 OPTICAL SORT SYSTEM

Lightly used optical sort system in great condition. E-scrap, plastic, non-ferrous, muni waste, etc.

\$65,000



## 1994 JOHN DEERE 644G WHEEL LOADER

Includes forks and bucket. Runs very well.

\$38,000



## 2014 SCORPION ENGINE PULLER

Great for removing engines and transmissions!

\$30,000



## HARRIS TGS-324 3-RAM BALER

24 x 24 variable bale. Good liners.

\$185,000



## 2014 SSI M-70 TIRE SHREDDER

Only 1,400 hours. Includes spare knife set.

\$79,000



## ROTEX SCREEN

20" x 82" 2 HP drive. Includes 13 screens.

\$18,000



## 2002 CAT 33BL WITH SHEAR

Equipped with a LaBounty MSD2500R shear. Recently hard-surfaced shear.

\$97,000



## 1991 KOMATSU PC400LC WITH GRAPPLE

Includes Young grapple, generator and magnet control box. Good running machine!

\$65,000



## 2013 FAIRBANKS 70' TRUCK SCALE

Steel deck and digital board.

\$35,000



## 2004 LIEBHERR 934 WITH SHEAR

Good operating Liebherr with a LaBounty MSD 2500 REBUILT shear.

\$75,000



## 2006 AL-JON 400XL

8,000 hours. Cummins engine. Road worthy and ready to move.

\$155,000



## 1992 CAT 950F LOADER

Includes bucket and forks.

\$30,000



## 2012 SIERRA RB6000 PORTABLE BALER

Good condition, only 4,500 hours.

\$275,000



## SIERRA 350T SHEAR, BALER

In operating condition, can be demonstrated. Great deal!

\$65,000

# DEALER • NEW • USED EQUIPMENT FINANCING



**1987 KOMATSU 350-1**

Includes forks and bucket.

\$30,000

# DADE

*Capital Corp.*

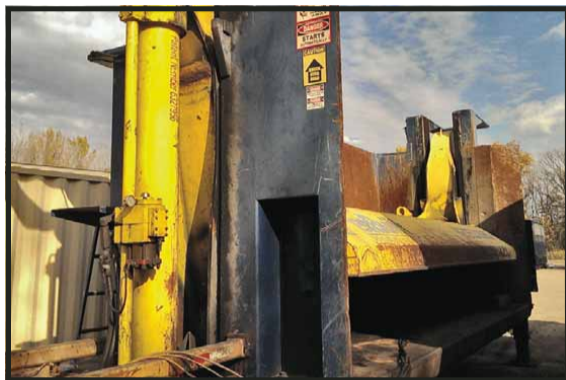


**DADE Capital Corp.**  
**800-823-9688**

*Perrysburg, OH*

**GREAT RATES!**

Visit the new [www.DADECapital.com](http://www.DADECapital.com) for other available equipment.



**2008 OVERBUILT 10HS CAR CRUSHER**

Stationary electric crusher with remote.

\$56,000



**2008 SIERRA 500SL PORTABLE SHEAR/LOGGER/BALER**

Recently rebuilt and in great condition. Includes picking line and stacking conveyors.

\$175,000



**REBUILT BARCLAY HORIZONTAL TIRE SHREDDER**

Completely rebuilt with 75 HP motor. New stripper design.

\$155,000



**2008 MAGNATECH 6060 SHREDDER**

1,500 HP, includes everything you need to start shredding! Dismantled and loaded on your trucks.

\$390,000

## HUSTLER 32" EDDY CURRENT SYSTEM



- Feeder
- Splitter Box
- Motor Controls

**\$29,500**

# METALS

## Steel imports down by 8.5 percent in August 2016

U.S. IMPORTS OF FINISHED STEEL MILL PRODUCTS BY COUNTRY OF ORIGIN (Thousands of Net Tons)					
	AUG 2016	JUL 2016	2016 Annualized	2015 Full Year	% Change 2016 Annual vs. 2015
SOUTH KOREA	334	429	4,059	4,854	-16.4%
TURKEY	180	318	2,542	2,823	-9.9%
JAPAN	177	197	1,863	2,259	-17.5%
GERMANY	128	88	1,245	1,515	-17.9%
TAIWAN	143	116	978	1,205	-18.9%
BRAZIL	53	61	914	1,437	-36.4%
CHINA	62	64	866	2,374	-63.5%
VIETNAM	107	64	830	222	273.8%
All Others	1,122	1,133	13,104	14,803	-11.5%
<b>TOTAL</b>	<b>2,307</b>	<b>2,471</b>	<b>26,401</b>	<b>31,493</b>	<b>-16.2%</b>

Based on preliminary Census Bureau data, the American Iron and Steel Institute (AISI) reported that the U.S. imported a total of 2,989,000 net tons (NT) of steel in August 2016, including 2,307,000 NT of finished steel (down 8.5 percent and 6.6 percent, respectively, vs. July final data). Year-to-date (YTD) through eight months of 2016 total and finished steel imports are 21,962,000 and 17,601,000 net tons (NT), down 22 percent and 23 percent, respectively, vs. the same period in 2015.

Key finished steel products with a significant import increase in August compared to July are standard pipe (up 33 percent), wire rod (up 23 percent), structural pipe and tubing (up 18 percent) and hot rolled bars (up 15 percent). Tin plate (up 12 percent) had a significant YTD increase vs. the same period in 2015.

In August, the largest volumes of finished steel imports from offshore were from South Korea (334,000 NT, down 22 percent from July final), Turkey (180,000 NT down 43 percent), Japan (177,000 NT, down 11 percent), Taiwan (143,000 NT, up 23 percent), Germany (128,000 NT, up 46 percent) and Vietnam (107,000 NT, up 68 percent). For the first eight months of 2016, the largest offshore suppliers were South Korea (2,706,000 NT, down 26 percent vs. the same period in 2015), Turkey (1,695,000 NT, down 17 percent), Japan (1,242,000 NT, down 24 percent), Germany (830,000 NT, down 21 percent) and Taiwan (652,000 NT, down 27 percent). Vietnam (554,000 NT, up 328 percent) had a significant year-to-date (YTD) increase vs. the same period in 2015.

## River Metals achieves INSHARP recertification

Greensburg, Indiana scrap recycler had no injuries for more than four straight years

River Metals Recycling's (RMR) Greensburg, Indiana facility was recently recertified as an Indiana Safety and Health Achievement Recognition Program (INSHARP) location. INSHARP businesses are proven workplace safety and health leaders. The Greensburg facility achieved the original INSHARP certification in August 2014.

"River Metals Recycling maintains an excellent culture of occupational safety and health thanks to the hard work by their teammates," said Indiana Department of Labor (IDOL) commissioner Rick J. Ruble. By taking a proactive approach, rather than a reactive approach, RMR reduces accidents, and strives to prevent them all together. Ruble stated, "We are very impressed by what this company has accomplished for not one, not two, but more than four years straight."

To participate in INSHARP, a company must develop, implement and maintain an exemplary worker safety and health management system and pass a comprehensive safety and health evaluation by the IDOL. In addition, the facility's occupational injury and illness rates must be below the national



industry average. Less than 50 Indiana employers have achieved INSHARP certification.

Bob Eviston, RMR president, thanked the Greensburg team for operating for more than four straight years without any injuries, and for their daily contribution to the company's success. He stated "first and foremost, to the River Metals Recycling Greensburg recycling team, congratulations and thank you for achieving the INSHARP recertification! As you know, this honor is a result of your ongoing personal commitment to working safely, as well as looking out for your fellow teammates, our customers, our suppliers, our vendors and our visitors to the recycling facility every day. Congratulations to all RMR Greensburg teammates on receiving this important INSHARP recertification."



**MAGNETS • GRANULATORS • GRAPPLES & MORE**

moleymagneticsinc.com | 1 (844) M-MAGNET (662-4638)

*Great products, pricing & service to improve your operation & ROI.*



**WIRE GRANULATORS**

- Granulate Copper or Aluminum
- 99.9% Clean Material
- Maximize Wire Profits



**230V MAGNETS (ESM)**

- Sizes Available from 30" to 64"
- Lifting Capability to 3,600 Lbs
- Weight Design allows for use on lighter machinery



**ALLIGATOR SHEARS**

- 99.9% Clean Material
- Adjustable Blade Travel
- Easy to Grease



**FULLY ENCLOSED HYDRAULIC MAGNETS (ESA)**

- 5-Minute Install
- No Generator Needed
- 28" - 60" Available



**EXCAVATOR ORANGE PEEL GRAPPLES**

- For all Types of Scrap Applications
- Sizes from .16 - 2.6 cubic yards
- 4, 5 and 6 Tine Configurations

# METALS

## Recycling business launched by Liberty's Greensteel

The Liberty House Group has launched a metal recycling business, Liberty Metal Recycling (LMR), as a major step towards the achievement of its Greensteel vision to create a competitive and sustainable steel sector in the UK.

LMR will develop a network of advanced collection and processing facilities for both ferrous and nonferrous metals across the UK, U.S. and continental Europe, and the new company will be led by two of the most widely experienced and respected figures in the global metal recycling industry.

Tom Bird, previously of SIMS and Van Dalen will head up the UK and U.S. parts of the new enterprise while Matthijs de Jong, formerly with Euro Scrap, TSR Recycling and the Alba Group, will lead the operation in mainland Europe.

Liberty intends that the new international business will be free-standing and profitable in its own right. The UK metal recycling business will supply the Group's fast-growing integrated steel business in the UK, which will be based increasingly on domestic scrap, melted in electric arc furnaces and powered by renewable energy.

LMR plans to set up a processing center at Newport, South Wales where the Group already operates a one million ton a year hot strip mill and where it aims to recommence liquid steel production in the near future from recycled scrap. In addition to Newport, the Group's aim in the UK is to locate recycling

centers in regions of high scrap metal generation and close to Liberty's steel melting and rolling facilities. These regions are likely to include the South East, Midlands, North East and Scotland.

Within five years it is intended that the business will be recycling five million tons of metal a year in the UK alone.

Liberty will simultaneously develop its recycling business in the U.S. and on continental Europe where it has already opened a scrap collection and trans-shipment operation in Gdansk, Poland.

Tom Bird, who will be chief executive officer of Liberty's UK and U.S. recycling business, has more than 30 years' experience in the industry. Having joined the Bird family business from university in 1986, he went on to lead the UK arm of SIMS Metal Management where he oversaw the expansion of the business, becoming the second largest metal recycler in the UK. He has a wealth of experience in all aspects of the metal recycling sector.

Business law graduate Matthijs de Jong, has held key positions in the metal recycling industry across the world over the past 20 years. He was with Euro-Scrap/TSR Group from 1997 to January 2013 where he was responsible for ocean logistics and international trading, and subsequently took a senior role with the Alba Group. His roles within the industry have seen him based across Europe and Singapore, where he set up a 'direct to the factory' sales channel.

## Life Of A Can educational program launched

Novelis and Discovery Education, a provider of digital content and professional development for K-12 classrooms, launched a new aluminum recycling education program, "Life of a Can – A Never Ending Story." Designed to reinforce the importance of aluminum recycling and empower students to be environmental stewards, this new program offers standards-aligned digital learning tools for classrooms and families nationwide that explore the never-ending lifecycle of a recycled aluminum can and encourage classrooms to implement recycling programs of their own. The online tool also features national hockey league defenseman, Stanley Cup Champion, and "eco-athlete," Andrew Ference, to drive home the importance of recycling and underscore our individual impact on the environment.

Beyond STEM skills, Life of a Can educates the future generation on key recycling facts. This multi-year engagement program offers digital resources designed to stimulate insightful conversations and illustrate STEM at work throughout the aluminum recycling process.

Available at no cost, the new online platform offers the following:

- Interactive classroom activities – The program's digital learning tools include a complete suite of standards-aligned free educator resources for upper elementary classrooms, which emphasize key STEM, critical-thinking and problem-solving skills for students focused on environmen-

tal subjects like sustainability, manufacturing and product lifecycles. Downloadable classroom activities are designed to complement teachers' existing lesson plans and explore the unique properties of aluminum and its role in our everyday lives. Life of a Can lessons ask students to reflect on their own contribution to trash, strategize how they can improve their current practices and understand the environmental benefits of aluminum recycling. A downloadable Recycling Toolkit allows classrooms to create their own classroom recycling programs.

- At-home family resources – Life of a Can's family extensions encourage students to share their classroom learnings with family members at home through STEM-based activities and family discussion starters that inspire insightful conversations about aluminum and the recycling process. Students will take home a scavenger hunt that illustrates how students' homes can be powered by the energy saved from aluminum recycling.

- Video vignette – Featuring National Hockey League defenseman and Stanley Cup Champion Andrew Ference, a self-proclaimed "eco-athlete," the What's One Can video highlights how recycling saves energy, investigates everyone's impact on the environment, and details how all students' can be champions for the environment.

Life of a Can is the first-of-its-kind recycling education program offered by Discovery Education.




Commodity		Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
#1 Bushelings	per gross ton	\$175.00	\$183.00	\$197.00	\$195.00	\$210.00
#1 Bundles	per gross ton	175.00	184.00	198.00	198.00	210.00
Plate and Structural	per gross ton	195.00	195.00	180.00	205.00	215.00
#1 & 2 Mixed Steel	per gross ton	190.00	165.00	180.00	191.00	175.00
Shredder Bundles (tin)	per gross ton	140.00	142.00	95.00	135.00	169.00
Crushed Auto Bodies	per gross ton	125.00	130.00	94.00	130.00	175.00
Steel Turnings	per gross ton	90.00	91.00	100.00	110.00	136.00
#1 Copper	per pound	1.94	1.95	1.95	2.05	2.02
#2 Copper	per pound	1.82	1.85	1.84	1.90	1.85
Aluminum Cans	per pound	.55	.53	.54	.57	.51
Auto Radiators	per pound	1.35	1.35	1.39	1.40	1.51
Aluminum Core Radiators	per pound	.54	.52	.50	.54	.53
Heater Cores	per pound	.98	1.00	1.08	1.00	1.20
Stainless Steel	per pound	.45	.45	.50	.49	.49

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 consistent 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 arising 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.

## INCREASE PROFITS with the most efficient sweat furnace!

**With a US Furnace's MAX-4000 Hi Efficiency Sweat Furnace,** get the lowest fuel cost per lb to process than any other furnace manufacturer — **GUARANTEED!**

The lowest melt loss rate than any other manufacturer — **GUARANTEED!** On-site installation, training & service.



**FULL EPA compliance GUARANTEED.**



- Permit assistance available.
- Built for years of continued service.
- Large hearth opening for automotive scrap.
- New technology burner and control systems.



**RECYCLING SERVICES INTERNATIONAL**

**518-424-1168**

[www.RecyclingFurnaces.com](http://www.RecyclingFurnaces.com)

## AUTOMOTIVE

# SALVAGING Millions

by Ron Sturgeon  
Autosalvageconsultant.com

### Tools for success: Know when it's time to sell

The first article in this series listed more than 25 tactics to increase your business success, all of them based on my experience.

In my business consulting practice, I regularly receive calls from owners wanting to know whether they should sell their salvage yard. In most cases, the business is family owned.

Here's what I have learned: As we get older, we become more risk averse. In many cases, I find a dad who won't sell because his son isn't "ready" yet. When I find a willing seller, I often find he wants between 3 and 10 times what the business is actually worth.

The real kicker is many of these sellers are so risk averse that they want all cash. Who can buy a business for all cash? A son or daughter buying a small- to mid-sized family-owned business rarely has the cash. Few employees have the cash to close a deal with those terms.

If you are reaching retirement time, you should think about succession planning. What is your exit strategy? I know you don't want to retire. I'm 62; I hear you. But, there is a right time to sell and pass the business down to someone with the same destroy-the-competition desire you had when you started it.

If you're 55 or older, you need to think about succession. You need a five year minimum planning window. I love helping clients create succession plans when they're proactive.

The saddest situations I face as a consultant are those in which a gifted entrepreneur spends a lifetime building a business but never plans his exit strategy. Because he can't bring himself to sell at the top, he often can't sell at the bottom.

Have your sales dropped two years in a row? If they have, you need to read this article closely. Your business is losing value. You should be thinking about the changes you need to make.

The "should I sell" call I get is usually a variation on these themes: Sellers want too much for the business they started, or they have a potential buyer, but won't offer financing. As far as valuation of salvage yards, with few exceptions, a business is never worth more than one

times annual sales. Often, half of annual sales is right. That number does not include the value of the land. Many other factors are important, especially operating income, but that's for another article.

So you've got a buyer, but you won't finance? How many buyers will you encounter over the next few years? If you're over 60, what will you do with the cash? Earn one percent? Why not finance at 7 percent over 20 years, and add an option to buy the land later?

Too risky, right? The buyer might fail. Consider that, in most cases, the down payment and monthly payments will be more than you would have gotten in liquidation. Of course, you should be prudent in choosing a buyer. Be diligent. Most of the calls I get are about selling to an employee or to sons who have worked in the business, which is lower risk than selling to an outsider.

Instead of taking a decent offer with some risk, the owners hang on and watch the business dwindle. Employees leave. Eventually, they close and liquidate by auction or scrapping out. I recently saw a salvage yard that the owner had sold for \$500,000 – but he would not take \$50,000 down – sell at auction for less than \$50,000. It was painful. He wiped out \$450,000, plus interest, in value.

Another friend wanted \$75,000 for his motorcycle shop and \$125,000 for the land, but he wouldn't finance it. He said the inventory was worth that. Finally, after a year, after employees left, he closed the shop. He sold the land and business for \$125,000, taking \$10,000 down. He was left with few options because he couldn't run it alone.

Don't let yourself get in this trap. Think about your exit strategy. You can sell it to your kids; keep an office and modest salary as the founder. They want you to take bank deposits and stick around for moral encouragement. Spread the value over 20 or 30 years so you get monthly income. Your kids know the business and can pay a little more than it is worth. They will appreciate the opportunity to own your business, just as you did when you started it.

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

This article was provided by [autosalvageconsultant.com](http://autosalvageconsultant.com), which was formed in 2001 by recyclers for recyclers, to help them improve their businesses.

If you want someone who will listen to you every time, do everything you tell them to do, and always be there for you for better or for worse... get a dog.

## Plastics recovery: Pilot program aims to increase automotive recycling

SPI, The Plastics Industry Trade Association launched a new project, the Automotive End-of-Life Vehicles (ELV) Recycling Demonstration Project, which will test the belief that increased automotive recycling is beneficial to recyclers and the plastics industry.

Organizations partnering with SPI to make this program a reality include the Automotive Recyclers Association (ARA), Automotive Recyclers of Canada (ARC), Canadian Plastics Industry Association (CPIA) and a number of independent plastics and automotive recyclers. The goal of the ELV Recycling Demonstration Project is to develop a method of collection and recovery of Polypropylene (PP) and Thermoplastic Olefin (TPO) auto parts in a way that demonstrates technical and economic feasibility.

Approximately 12 to 15 million vehicles are scrapped each year in the U.S. The average lifespan of a vehicle is estimated to be about 11.5 years, and increasingly those vehicles are comprised of more and more plastics. Factors like using plastic to lighten the weight of vehicles helps meet heightened Corporate Average Fuel Economy (CAFE) standards and the superior design freedom afforded by plastics are driving the increased use of plastics in new vehicle design. Recovery of plastic components before shredding is largely driven by the resale market, but some recovery for mechanical recycling is also occurring.

"We want to make sure that our members see the business benefit of recycling automotive plastics," said Kim Holmes, senior director of recycling and diversion at SPI: The Plastics Industry Trade Association. "The way to get real buy-in is to have concrete data that builds the business case for these recovery models."

Another goal of the ELV Recycling Demonstration Project is to gather information to better guide design for recycling opportunities that can help inform future automotive design and recovery of plastics. "The automotive supply chain truly sees this as an opportunity to effect change on a number of levels, bringing meaningful change to the front and end of life," said Kendra Martin, senior director of industry affairs at SPI.

Once gathered and analyzed, the project data and best management practices will be shared broadly with the automotive and plastic recycling industries. The goal is to predict trends in demand for recycled materials, so recyclers can invest in processing capacity with greater confidence.

"As plastics continue to be a material of choice for vehicles due to their weight differences and other energy-efficient benefits, we are thrilled to play a leading role with SPI in a program and will continue to explore the benefits of recycling plastic automotive parts," said Michael E. Wilson, chief executive officer of the Automotive Recyclers Association.

### Call John Monaghan, CPA, CVA for your expert financial advice.

EXPERIENCED IN SOLID WASTE & RECYCLING BUSINESS VALUATIONS

## What's Your Business Worth?



VZN Group, LLC

419-882-1886  
www.vzncpa.com

- Accurate Business Valuation
- Financial Forecasting
- Consulting
- Tax Preparation & Planning

John Monaghan, CPA, CVA



### Testimonial



I received your publication by mail. I can confirm I have never seen it before in its hard copy version. I like the layout and it is very informative, in a league of its own in terms of quality information. No wonder it is the only recycling publication quoted on Lumistar's blog. I look forward to upcoming issues.

I have read issues of your publication in the past by accessing digital archives at one of two libraries I am a member of. Your website is also fantastic.



—Paul Angel, LUMISTAR CORPORATION



# AUTOMOTIVE

## Hydrogen fuel cell vehicles are future of the automobile

Predicted global cumulative sales of over 20 million hydrogen fuel cell vehicles

Worldwide, over 20 million hydrogen fuel cell vehicles would be sold cumulatively by 2032, according to a report published by Information Trends. The sales would generate cumulative revenues upwards of \$1.2 trillion for the auto industry, it said.

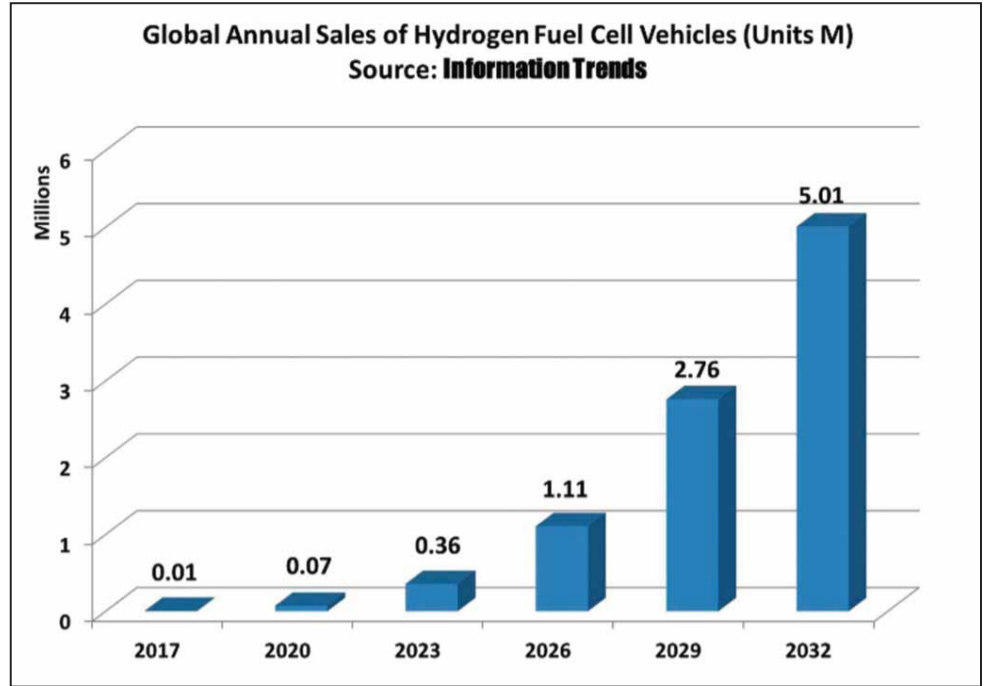
Hydrogen fuel cell vehicles, which generates zero emissions, represents the future of the automobile, said Naqi Jaffery, the lead author of the report. These vehicles will be the fastest growing segment of the auto market by 2050, he added.

The report, "Global Market for Hydrogen Fuel Cell Vehicles," said that by 2020, sufficient hydrogen filling infrastructures would be in place in several regions of the world, giving an ini-

tial boost to the market for hydrogen fuel cell vehicles.

Early users of these vehicles are fleets and high-end consumers. As fueling infrastructures expand in the 2020s, hydrogen fuel cell vehicles will begin to garner greater market acceptance, resulting in faster market penetration. In the year 2032, over 5 million of these vehicles will be sold with projected revenues of over \$250 billion.

According to the report, Toyota, Honda, and Hyundai have already rolled out hydrogen fuel cell vehicles, and several other major automakers are poised to enter the market, triggering intense competition. In terms of unit sales, the U.S. will dominate the market compared to other countries, but the region to



Sales forecast for hydrogen fuel cell vehicles, 2015-2032

witness the highest growth will be Asia-Pacific.

Several governments are giving generous incentives to help propel the hydrogen fuel cell vehicle market, but

Japan is the most bullish on this technology. The Japanese Prime Minister, Shinzo Abe, envisions hydrogen fuel cell vehicles as part of a "hydrogen society" where fuel cells will power buildings.

## Agreement with auto dealership includes junk vehicle recycling

The U.S. Environmental Protection Agency (EPA) has disclosed an agreement with High Plains Motors, Inc. resolving alleged hazardous waste violations related to the improper management of used oil, paint solvents, lacquer thinner and other materials at an automobile dealership and service center in Wolf Point, Montana. As part of the settlement, High Plains Motors will pay a penalty of \$5,758 and complete a junk vehicle recycling project on the Fort Peck Indian Reservation.

"This environmental project is an example of how EPA enforcement actions can directly benefit our communities," said Suzanne Bohan, EPA assistant regional administrator. "EPA commends High Plains Motors and Tribal leaders for their commitment to work together to safely remove dozens of abandoned vehicles on the Fort Peck Indian Reservation."

The High Plains Motors automobile dealership and service center is located on privately held land within the exterior boundaries of the Fort Peck Indian Reservation. EPA inspections in July 2015 revealed that the company had violated provisions of the Resource Conservation and Recovery Act (RCRA) by failing to label used oil containers and respond to releases of used oil at the facility. EPA inspections also found that the company failed to properly manage paint solvent waste, oil/water/antifreeze mixture, and lacquer thinner on-site. EPA issued High Plains Motors a compliance order and the company has since taken steps to secure compliance.

The agreement resolves High Plains Motors' liability for the alleged RCRA violations by securing a penalty and a supplemental environmental project that will recycle approximately 86 abandoned vehicles on the Fort Peck Indian Reservation. After seeking input from the Fort Peck Assiniboine and Sioux Tribes and EPA, High Plains Motors agreed to work with a

local salvage company, Trader's Den, to remove abandoned or inoperable vehicles on Tribal housing-owned property in the Wolf Point and Poplar areas of the Fort

Peck Indian Reservation. These actions will remove potential sources of pollution from the vehicles, including oil, transmission fluid, coolant, brake fluid, gasoline,

and batteries. High Plains Motors will properly dispose of or salvage all recovered materials and will deposit vehicles at a local junkyard for recycling.

BCA
INDUSTRIES

BUILT WELL ... BUILT HERE.

4330 W Green Tree Rd. Milwaukee WI 53223 P 414-353-1002 [www.bca-industries.com](http://www.bca-industries.com) [john@bca-industries.com](mailto:john@bca-industries.com)

Save your precious capital... RENT the only "True Portable" Tire Shredder

**PD1000 Multi-Shredder**

Shred 400 tires per hour!

- Shred 400 tires per hour primary
- Shreds wood, electronics, paper, plastics, C and D waste, metals and more.

**PD1000 TIF**

2 to 3 tons of TDF per hour on site!

- Car and light truck tires into TDF chip in any size
- Folding out-feed conveyor
- Ground level in-feed conveyor.

Call to Reserve

(414) 353-1002

Portable Primary/Secondary High Output

ES 2000 Series Systems from 5 Ton per hour to 20 ton per hour... Starting at Just \$209K

**Specifications:**

- 55" to 72" x 44" cutting chambers
- 8" 4130 Chromoly steel shafts
- BCA 6 keyed "no washout" shafts
- 24" diameter NEW proprietary ultra hard-faced knives for 30% more life.
- Cleaning fingers and dead-zones
- Proprietary hydraulic cluster drive
- Auto reverse /Overload protection
- Full PLC control for system integration

**Options:**

- Dual cutting chambers available
- Up to 800HP rated
- BCA recirculation screen system
- Custom BCA systems in 3D design
- Conveyors, hoppers, magnetics and secondaries
- BCA patented Chipper/Shredder knives available
- PD2000 portable versions

The BCA ES2000 66" Dual Chamber for Semi and Passenger Tire Shredding

## ALTERNATIVE ENERGY

# Joseph Gallo Farms installs solar array in California

Joseph Gallo Farms unveiled a new two megawatt (MW) solar array, the largest privately owned system ever installed on a California dairy. The fixed array system supplies renewable energy on-site for the family's dairy farm.

By harvesting the sun's power on 7,840 solar panels on 8 acres, the fixed-array system provides on-site renewable energy that will significantly reduce its need for electricity from the local utility and avoid an estimated 27,500 metric tons of CO2 emissions over the next 20 years. This reduction in greenhouse gas emissions is equal to planting more than 706,000 trees in the next 20 years or removing more than 292 cars from the road annually. The amount of power produced could power 282 average homes a year.

The deployment of the two MW solar array helps carry out Governor Brown's renewable energy and greenhouse gas

reduction goals and initiatives, including: AB 32 to reduce greenhouse gas emissions to 1990 levels by 2020, SB 32 to reduce greenhouse gas emissions by 40 percent below 1990 levels by 2030 and SB 350 to increase renewable energy generation to 50 percent by 2030.

Joseph Gallo Farms is a pioneer in sustainable farming practices in California. In addition to the new solar array, Joseph Gallo Farms also operates one of the largest and longest-running methane digesters in California, which captures biogas from cow manure and then uses the biogas to fuel generators to produce energy. The electricity produced by this renewable "cow power" is used on-site and significantly reduces greenhouse gas emissions and decreases the farm's dependence on fossil fuels.

"Our new solar array meets about half of our energy needs for our dairy and farming operations," Gallo said.

## CNG station opened for Rogue Disposal

TruStar Energy, a developer of compressed natural gas (CNG) fueling stations, opened a CNG fueling station for Rogue Disposal & Recycling, Inc. The station is located in White City, Oregon, and will serve Rogue as well as the public.

The company will be using the station to fuel their existing CNG fleet and anticipates opening their station to the public this fall. This will be 1 of only 3 publicly accessible CNG fueling stations in the area.

Rogue has 8 CNG-fueled recycling and waste collection trucks in its fleet of 36 vehicles. The company plans to complete a total conversion of the fleet over the next eight years.

The fast-fill station has three 200 h.p. Ariel compressors, packaged by ANGI, a PSB gas dryer, and two ANGI fast-fill dispensers. The station is capable of producing almost 11 gasoline gallon equivalent (GGE) per minute.

## ELECTRONICS

# California Governor signs bill enabling CRT glass recycling

California Governor Jerry Brown signed into law a bill proposed by Assemblymember Susan Talamantes Eggman (D-Stockton) to enable the recycling of cathode ray tube (CRT) glass, found in now obsolete televisions and monitors.

The growing availability and affordability of digital flat screen TVs and monitors has rendered CRT technology obsolete in the U.S. As people upgrade to digital displays, they discard their old televisions and monitors.

The process of recycling scrap CRT monitors and televisions produces two different types of glass: funnel glass, which contains high levels of lead as well as low and non-lead panel glass. The current state regulations limit the options for recycling this glass to smelting, glass-to-glass recycling for the production of new CRTs, or landfill disposal.

And the market for CRT glass is shrinking. The India-based company Videocon, the last manufacturer of CRTs, uses as much as 57 percent of the scrap funnel and panel glass disposed of in California, but it's unclear how much longer they will remain open.

Without alternative uses, many U.S. recyclers have resorted to simply landfilling or stockpiling CRT glass – an esti-

mated 17 million pounds of CRT glass are stockpiled in California alone.

"We have to keep pace with changes in technology that can suddenly create significant new sources of waste," Eggman said. "There are uses out there for scrap CRT glass that can keep it out of landfills – all we have to do is allow them under the law so these markets can flourish."

Eggman's bill, AB 1419, would allow scrap CRT panel glass to be used in many new products where it is determined to pose no harm, including tile and radiation shielding glass. The bill also allows state agencies to identify additional end-uses of the material, and to prohibit any previously allowed uses if needed.

"The e-waste recycling industry is struggling on dual fronts with record low commodity markets and lack of allowable end-uses for CRT panel glass," said Teresa Bui, senior analyst for Californians Against Waste, the sponsor of the bill. "AB 1419 will help open up recycling markets in California, and reduce the need for extracting raw materials."

AB 1419 passed the legislature with bipartisan support and enjoyed support from local government, environmental groups and the state's recycling industry.

## Three ERI facilities now certified

ERI, a recycler of electronic waste and a large cybersecurity focused hardware destruction company, has successfully achieved AAA certification for data destruction from the National Association for Information Destruction (NAID) for its facilities in California, Indiana and Massachusetts. ERI's goal is to have all of its locations NAID certified by January of next year.

NAID is an international professional organization that sets the industry standards for responsible data destruction. Its certification program was created through the combined efforts of the industry's leading information security

professionals. Its standards and practices are recognized globally.

"We are extremely proud to have received AAA certification from NAID for three of our operations," said John S. Shegerian, chairman and chief executive officer of ERI.

Shegerian noted that data security has always been a priority at ERI and the NAIDA AAA certification that all ERI locations are presently undergoing, starting with the flagship Fresno location, is the third certification system achieved and an effective way of demonstrating that longstanding commitment.

Compactors - Portable and Stationary, Hydraulic Cart Dumpers, Belt

Filter Presses, Transfer Stations, HD Extruders, Xtractors, X<sup>3</sup>Cyclers, Densifiers, OFR Oil & Filter Recycler, Conveyers, Turn-Key Installation

### Recycling Equipment

#### X<sup>3</sup>Cycler



Bales with NO moisture deductions!



sebrightproducts.com

32 Years of Innovation 1984 - 2016

800-253-0532 / 269-793-7183

Depackage, Dewater, Densify

PET, LDPE, HDPE, EPS, EPP  
Aluminum, Tin, Paper, Aseptic

#### Xtractor

Sanitary wipes



XTRACTOR

#### Polystyrene DENSIFIER™



#### Oil & Filter Recycler

Process up to 13 barrels per hour and reclaim twice the oil.

**3 out of 4 people reading this ad will read the headline, but only 1 of 4 will continue reading.**

**Information like this impacts the effectiveness of your advertising dollars.**

Creativity and Marketing Excellence  
Are on American Recycler's  
Long List of Tools for  
Lasting Success.

877-777-0043



We go the extra mile.

WWW.AMERICANRECYCLER.COM

## PLASTICS

# Groups team up to reduce bottled water waste

Brita, a water filtration brand, is joining UC Berkeley in a combined effort to increase campus sustainability efforts while offering students and the broader campus community healthier beverage choices.

The 10 year, \$4 million partnership will focus on championing and extending the campus' innovative "Refills not Landfills" program. The program, launched as part of the University of California system's plan to achieve zero waste by 2020, is an effort to encourage students and the campus community to drink from reusable containers.

The partnership is a first of its kind for Brita. Brita has previously been involved in promoting sustainability on campuses through a partnership with the nonprofit REVERB and its Campus Consciousness Tour, but this relationship marks the first time Brita has worked with a specific university on a sustainability and student health program. Additionally, this is the fourth campus-wide partnership through UC Berkeley's University Partnership Program (UPP), which works collectively across the university to develop comprehensive

relationships that align with university's mission and values.

Brita will provide the campus with complimentary Brita products such as reusable bottles, as well as significant sponsorship to campus groups that support campus sustainability goals and champion healthy living. Brita products will also be sold at a variety of campus outlets.

The partnership kicked off with the 2016-2017 academic year. Details of the partnership include:

- Brita product donations to campus every year, including distribution of Brita products in every university owned residence hall.

- Support of the Refills not Landfills program.

- Replacement of outdated water refill stations, as well as installation of new stations in high-need, high-traffic campus buildings.

- Brita products sold at the ASUC Student Union, Cal Dining locations, Recreation Center and other locations.

- Establishment of an on-campus Brita filter-recycling program with Cal Zero Waste.

# Domenic Di Mondo receives Young Leader Award

Domenic Di Mondo, technical director for GreenMantra Technologies, which produces high-value waxes from recycled plastics, was recently honored with the inaugural Young Leader Award from the Canadian Plastics Industry Association (CPIA).

The new award is intended to "showcase inspirational and dedicated young leaders who demonstrate leadership in plastics innovation or technical leadership and/or sustainability efforts," according to CPIA. "Recipients serve as a positive role model for young professionals thinking of entering the plastics industry."

"Domenic is an outstanding leader within our company and is richly deserving of this important industry recognition," said GreenMantra president and chief executive officer Kousay Said. "He

has been instrumental to our company's growth and success."

Di Mondo has been with GreenMantra since its inception in 2010 and is an inorganic chemist with expertise in polymer chemistry, catalysis and conversion of waste materials to higher value products. He has led GreenMantra's technical efforts to develop and enhance its process, which converts polyolefin waste plastics into waxes and other specialty chemicals. He and his technical teams have been awarded several patents for processes and manufacturing configurations in support of the GreenMantra conversion technology.

He also created and has led the company's internship and co-op programs for students focused on careers in chemistry and science, and has served as a mentor for numerous young scientists.

# ISRI proposes plastics spec changes

Following the approval of the Institute of Scrap Recycling Industry's (ISRI) Plastics Division, a series of new, revised, and deleted plastic scrap specifications will be presented to the ISRI board of directors at the next board meeting to be held in November 2016, in Salt Lake City.

The proposed changes are intended to better reflect what commodities are being traded in order to assist members in the buying and selling of materials. The proposed plastic specification changes were developed in consultation with plastic scrap recycling industry members and other plastics industry associations.

At the board of directors meeting, the board may choose to adopt, amend or reject the recommendations of the division or table them pending further review.

More information about the rules governing the procedures from the addition, amendment, or withdrawal of ISRI's scrap specifications can be found in the Scrap Specifications Circular.

To submit comments, recommendations, or questions contact either Jonathan Levy or Joe Pickard. There will be an open comment period for 30 days following the vote by the board.

## BUSINESS BRIEFS

### Terramac appoints Linder Industrial as new dealer

■ Terramac, a manufacturer of innovative rubber track crawler carriers, expanded its representation in the North American market to include Linder Industrial Machinery Co. as part of its dealer network. Linder will represent the versatile Terramac product line in Florida, North Carolina and South Carolina.

Linder will offer Terramac's RT9, RT14 and RT14R crawler carriers. In addition to Terramac's three standard options – convertible dump-to-flat beds, rock dump beds and flatbeds – Linder will offer Terramac units customized with support attachments such as cranes, drills, generators and tanks.

The team at Linder will provide professional sales, rental and support on the Terramac product line across 16 branch locations. Linder's dependable representatives will deliver timely service and their parts and service technicians are equipped with state-of-the-art technology to ensure machines are maintained at the highest standard.

### US Ecology declares quarterly dividend

■ US Ecology, Inc. declared that stockholders of record on October 21, 2016 will receive a quarterly cash dividend of \$0.18 per common share.

The company currently has 21.7 million shares outstanding and estimates that approximately \$3.9 million in cash will be paid out for the declared quarterly dividend.

### Ferriola elected chairman of World Steel Association

■ Nucor Corporation shared that John Ferriola, its chairman, chief executive officer and president, was elected chairman of the board of directors of the World Steel Association (Worldsteel) at the organization's 50th Annual Conference in Dubai, United Arab Emirates. Ferriola will serve as chairman for a one year term.

Ferriola has served as vice chairman of the worldsteel board of directors, as a member of the executive committee and as chairman of the education and training committee.

He also serves as chairman of the board of directors of the American Iron & Steel Institute, is on the board of directors of the National Association of Manufacturers and has been active in the Association for Iron and Steel Technology for more than 30 years.

### ASA promotes Joe Caban to operations supervisor

■ In a recent promotion, Joe Caban was named the new operations supervisor at ASA Electronics. His responsibilities will now include supervising the shipping and receiving department. He was elevated from his previous position of production supervisor where he was responsible for warranty and fabrication.

Caban will continue to be in charge of all his previous responsibilities and is looking forward to adding this new facet to his daily activities.

Caban has been with the company for nearly four years.

## GET THE FACTS

### about cold weather performance by BEKA!

For winter weather and high altitudes, you need a BEKA auto-lube system to keep your equipment running smooth.

- Cast aluminum base resists hot/cold temperature swings and withstands impacts without leaks
- No springs! Eccentric drive gear ensures reliable service in all climates and conditions
- Engineered to pump grease down to -13°F/-25°C

Find out why industries are choosing BEKA for today's best-built auto-lube systems.

Call 1.888.862.7461 or email us at [info@beka-lube.com](mailto:info@beka-lube.com).



1.888.862.7461  
[www.beka-lube.com](http://www.beka-lube.com)

BEKA - LUBRICATION SPECIALISTS SINCE 1927

**BEKA**  
LUBRICATION



# Classified ADVERTISEMENTS

**877-777-0043**

—Always Available—

**PLACE YOUR TEXT AD ONLINE**

[www.AmericanRecycler.com](http://www.AmericanRecycler.com)

Rates	
<b>Text Classifieds</b>	<b>Display Classifieds</b>
\$65 for up to 50 words. Add \$1 each additional word.	\$70 per column inch depth, 2.5" width.

WE ACCEPT CHECKS, MONEY ORDERS,  
MASTERCARD, VISA and DISCOVER.  
ALL CLASSIFIED ADVERTISEMENTS  
MUST BE PAID IN ADVANCE.

**UPGRADE TO A FEATURED CLASSIFIED AND ADD 1 COLOR + 1st POSITION!**

## Featured Classifieds

**WHAT ARE YOU WORTH?**

We provide **Business Valuations** and **Financial Proforma Forecasting** for all solid waste business or permit activities. If you are facing a transaction, financing, or business succession...

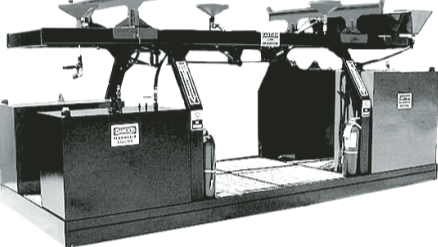
**412.562.0891 tel**  
**412.562.0892 fax**  
[info@sternerconsulting.com](mailto:info@sternerconsulting.com)

**STERNERCONSULTING**  
MERGERS & ACQUISITIONS  
MANAGEMENT STRATEGIES  
VALUATION & FUNDING PACKAGES

[sternerconsulting.com](http://sternerconsulting.com)

**IRON AX ENVIRO-RACK**

Complete fluid removal in less than 5 minutes!



The Enviro-Rack is the most superior auto fluid removal and dismantling system on the market today.

**877-247-6629 • IronAx.com**

## Balers

**MARATHON AT-604842 BALER** for sale. 5-wire auto tie, auto tension, auto cycle with photocells. Greyline controller on PLC, serrated shearbar, 2-speed ram, oil cooler, cart dumper, 5' charge box, 30hp main drive. \$44,000 lb. machine. Runs excellently. No longer needed. \$35,000. Northeast Ohio. 330-749-4932

**Balers ~ Shredders ~ Conveyors**  
**Sorting Equipment ~ Service**

**YOUR TOTAL SOURCE FOR NEW AND USED RECYCLING EQUIPMENT**

**Buying and Selling Recycling Equipment**



216-252-8090  
[sales@elyent.com](mailto:sales@elyent.com)  
[www.elyent.com](http://www.elyent.com)


**BUILT TO BE THE FINEST TWO-RAM BALERS**




**SIERRA**  
800.343.8503 | [sierraintl.com](http://sierraintl.com)

## Balers

**GREAT DEALS ON BALERS**



**Sierra 350T Shear Baler**  
In operating condition, can be demonstrated. \$65,000



**Harris TGS-324 3-Ram**  
24 x 24 variable bale. Good liners. \$185,000

**CALL TODAY**  
**419-776-5080**

## Businesses


**TWO FEEDER YARDS FOR SALE** in Northwestern Pennsylvania, both close to I-80, 15 miles apart, lots of support equipment and inventory, looking for offers over \$2 million. Partial financing considered. Fax for details: 814-772-9735. E-mail: [dfk.amr@gmail.com](mailto:dfk.amr@gmail.com).

**SALVAGE/AUTO RECYCLING YARD**, well known, located in Southeast Iowa, new 70' scale, E-Z car crusher, E-Z tin baler, CASE track hoe, CASE W20 wheel loader with foam-filled tires, 2005 International 9200i semi, newer high side scrap hauling trailer, much more equipment, approximately 550 vehicles, buildings on 5 to 6 acres in great location. Contact Dennis 319-470-1103.

**SCRAPYARD IN NW OHIO** for sale, owner is ready to retire. Yard includes 5.8 acres with 3 industrial buildings consisting of 17,490 sq.ft. Equipment and inventory included. \$1.4 million, negotiable. For details, e-mail [scrapyard78@gmail.com](mailto:scrapyard78@gmail.com).

## Containers

**BomacCarts**  
A Cut Above the Rest



[www.bomaccarts.com](http://www.bomaccarts.com) • [sales@bomaccarts.com](mailto:sales@bomaccarts.com)  
1-800-909-1147

**NEXT DEADLINE**  
**November 16**

**EQUIPMENT SPOTLIGHT:**  
**Metal Shredders**

## Material Handlers

### KUHN EQUIPMENT



**2010 Liebherr A924C MH with 2,400 hours!** Hyd. cab, 45 ft. MH boom & stick, NEW gen set, NEW tires, auto lube. **Call for price!**



**2009 Liebherr A934C MH** - 8,000 hrs., hydraulic cab, A/C, MH boom & stick, gen set, grapple, blade, and NEW solid tires.



**2002 Cat 345B II MH** - fixed high cab, 54 ft. reach, A/C, MH boom & stick, 85+% U/C. **Call For Price!**



**2011 Cat 325D MH** - Hydraulic cab, gen set, A/C, 51 ft. reach, MH boom and stick with grapple. **Call For Price!**



**2007 Cat 325DL** - 5,900 hours, equipped with a zero hour REBUILT Genesis GXP400R mobile shear with 360° rotation. **Call For Price!**

**800-225-0623**  
**after hours: 843-324-8487**  
[sales@kuhnequipment.com](mailto:sales@kuhnequipment.com)

**Material Handlers**

**EQUIPMENT INTERNATIONAL**  
**303-699-7766**  
**MATERIAL HANDLERS**  
**IN STOCK:**

- Material Handlers with Cab Risers, Magnet Gen-sets & Rotating Grapples.
- Mobile Shears
- Portable Balers
- New Grapples
- New Gen-Sets & Magnets



**NEW MAGNETS**

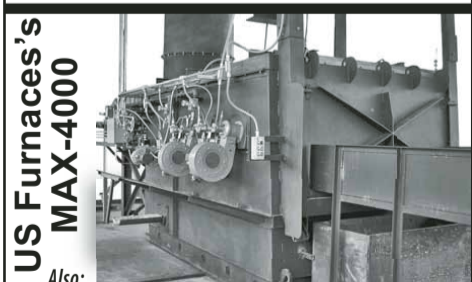
- No gen-set required
- Runs off of machines batteries
- Up to 40" diameter



**WE BUY & SELL ALL TYPES OF USED SCRAP PROCESSING EQUIPMENT!**

**Miscellaneous**

Hi-efficiency, new technology.  
**INCREASE PROFITS!**  
**SWEAT FURNACES**



US Furnaces's MAX-4000  
 Also:  
**PARTS • REPAIR • CUSTOM BUILDS**  
**518-424-1168**  
 www.RecyclingFurnaces.com

**Miscellaneous**

**RECYCLING EQUIPMENT**

Compactors - Portable & Stationary, Hydraulic Cart Dumpers, Belt Filter Presses, Transfer Stations, HD Extruders, Xtractors, X<sup>3</sup>Cyclers, Densifiers, OFR Oil & Filter Recycler, Conveyors, Turn-Key Installation

*All Made with US steel.  
 Designed, manufactured, installed and serviced by US workers!*

**BRIGHT TECHNOLOGIES** 30 Years of Innovation  
 SPECIALTY EQUIPMENT DIVISION OF SEBRIGHT PRODUCTS, INC.

**800-253-0532**  
 www.sebrightproducts.com

**ClearSpan fabric structures**  
 1.866.643.1010 ClearSpan.com/ADAR

**WE MANUFACTURE • WE INSTALL  
 WE SAVE YOU MONEY**

KEEP YOUR RECYCLABLES DRY YEAR-ROUND

**MADE IN USA**

Fabric Structures Hybrid Buildings Foundation Solutions

**ORANGE PEEL GRAPPLE, BRAND NEW!** 3/4-yard 4-tine orange peel grapple with 15-ton 360° rotator. Show floor model for sale, SPECIAL PRICE: \$18,800. Please call Moley Magnetics at 716-434-4023 or visit www.MoleyMagneticsInc.com.

**Herbold Screens, Knives, Parts & Wide Range of Recycling Equipment**

**In-stock at our east coast facility for quick shipment**

**HERBOLD**  
 MECKESHEIM  
 USA

888.612.7774 • HerboldUSA.com

**1996 GEN-SET.** 150 KW Gen Set JD diesel engine. 2,578 hours, 12v batteries, hertz 600, RPM 1800. Condition good. Was used as a backup power supply for the first 10 years of its life. Only used when using the Flo-Cait. Purchased used \$12,500. Would like to sell gen-set and Flo-Cait together. For set, asking \$30,000 OBO. Contact Shelby Strong at 503-659-4240 or e-mail sstrong@mcfarlanesbark.com for more information.

**Miscellaneous**

**2006 FLO-CAIT.** In rough condition, needs new rock belt and wiring replacement. No discharge conveyors. Cost new \$150,000. Would like to sell Flo-Cait and gen-set together. For set, asking \$30,000 OBO. Contact Shelby Strong at 503-659-4240 or e-mail sstrong@mcfarlanesbark.com for more information.

**WE BUY AND SELL USED RECYCLING EQUIPMENT**

**HOVDE RECYCLING EQUIPMENT**  
 800-617-5219 480-699-2460  
 scrapequip.com steven@scrapequip.com

**ALL INCLUDE FORKS & BUCKET!**

**1994 JD 644G Wheel Loader \$38,000**

**1992 CAT 950F Loader \$35,000 (left)  
 1987 Komatsu 350-1 \$30,000 (right)**

**419-776-5080**

**Software**

**SALVAGE YARD SOFTWARE.** Auto and Scrap Recyclers Windows™ yard management system from Rossknecht Software. POS invoices for purchasing scrap or selling parts. Includes your own inventory website, check printing, bookkeeping, vehicle parts breakdown, part tags, pictures. \$795 complete, no monthly fees. www.rossknecht.com, arsales@rossknecht.com or call 530-605-2657 for free online demo.

**Tire Recycling**

**WHEEL CRUSHER TC-300.** Only 6 months old, only 50 hours. Works up to 120 wheels per hour. Comes with loading table. New price was \$11,000. Now \$6,999. Pictures or videos are available at coastalauto@embarqmail.com or call 843-846-6688 SC 29906.

**Trucks**

**1996 INTERNATIONAL 9200 TRUCK.** A series 60 Detroit diesel, 10 speed transmission with a tandem axle drive. Blower system is home built with Halco walking floor. It has a Duroflow blower, model 4512. Clean title & has never been wrecked. Asking 20,000 OBO. Contact Shelby Strong at 503-659-4240 or e-mail sstrong@mcfarlanesbark.com for more information.

**5 Reasons to Advertise in American Recycler NOW**

- 1** While your weaker competitors are slashing ad budgets, act now and *easily* grab their market share.
- 2** Identify new prospects now, to counter any customer cutbacks. Your sales team could use help from advertising.
- 3** Customers have short-term memories. Your competitors who continue to advertise will take them from you.
- 4** Advertising is cumulative. Keep the ground you've gained and practice continuity for effective advertising.
- 5** You're a smart and savvy business person. You know advertising really is an *imperative* part of being a success!

**American Recycler**

**877-777-0043**  
 www.AmericanRecycler.com

**ADVERTISE IN AMERICAN RECYCLER**  
**877-777-0043** www.AmericanRecycler.com

## INDUSTRY PROFILE

## A Closer Look

by Donna Currie

## Rotogran

Mike Cyr • 905-738-0101

Mike Cyr, the owner of Rotogran, described the company as a North American manufacturer of size reduction equipment for plastics processing and recycling. He specified "North America" because they're based in Canada but do business in the U.S. also. Rotogran manufactures and sells high speed granulators that are primarily used for plastics, but they can also be used for textiles, rubber, and similar materials.

Cyr pointed out that while other companies sell granulators that are assembled in North America, they're often made from foreign components. Rotogran equipment is not only assembled in North America, but the steel and all purchased parts are also North American made unless there are no other options. The company also sells conveyors and other components that work with the granulators.

Cyr started his working career as a machinist, but he also had an engineering background. It wasn't long before he started building conveyors for a small company. "Because I was a machinist, I knew how to build things," he said.

He was working as plant manager for that small company when a larger company noticed him and offered him a job. "At that point, I could do it all," he said. He could build conveyors, draw designs, or work with CAD programs.

Eventually, he became the national sales manager for that large company. "One of the products I was handed was a granulator," he said. As part of that job, he visited Rotogran, but he wasn't completely enthusiastic about the product. He worked with Rotogran for about five years to help them make the product better.

In 1992, the company he was working for was suffering because of the recession. At about the same time, the owner of Rotogran was looking for help. Cyr's employer couldn't help Rotogran with their sales, but Cyr decided that working for Rotogran was an opportunity he couldn't pass up. He signed a contract to work for commission only.

Cyr moved up in the company until he was vice president, but he was still working for commission only. When he wanted a raise, he simply sold more equipment.

After 20 years as an employee, Cyr purchased the business. While there was some negotiation over the price, he said that it was an unspoken mutual understanding that Cyr would eventually end up buying the company.

Cyr explained that the granulating needs for companies that made plastic parts was different from what was needed for the recycling industry. The manufacturers would only need to granulate excess plastic, or the occasional parts that were made wrong. They seldom ran their machines at high speed or maximum capacity.

On the other hand, recyclers needed machines that ran at 100 percent capacity all the time. "It's all about time and money," Cyr said. All the recyclers want to do is make granules since that's their product.

Cyr built machines that could stand up to the high production needs of the recyclers. "It's not the prettiest, but it will last a long time," he said. He built machines that were big and strong "and the people on the floor will like it" because they could just let it run and they wouldn't have to repair it.

"Plastic processors also like it because it's built like a tank," Cyr said. So, while the machines are built for the needs of recyclers, they're popular with other people who are looking for the best machines they can find. "We're building the race cars," Cyr said. "The tanks."

The equipment that Rotogran builds is customized for each customer. While the basic machinery remains the same, there are many parts that are unique for each customer who might need to feed from a different side, or who might have extra-long or extra-wide parts. "I am not an engineer," Cyr said, "I am an imaginer."

He said that there are engineers working for the company, but he will look at the plans and decide that where they called for a .5" bolt, he wanted a 1" inch bolt to make the machine even more robust.

Rotogran is always looking for more improvements to the basic machines, and always working with customers who need to granulate products as varied as 55 gallon drums, giant canoes, skids, medical equipment, caskets, CDs, marijuana stalks and "everything from thumb tacks to cow hides."

Cyr said that he's particularly proud that the company has endured three recessions but has never laid off an employee. He said part of the reason the company has done so well is that it sells to both manufacturing and to recycling customers, and when one industry isn't doing well, the other tends to flourish.

But it's also about the personal touch that keeps customers coming back. Phones are answered by people instead of machines, and Cyr personally calls customers two or three months after their machine is delivered to find out what they think and to answer any questions. "I enjoy imagineering systems for people," he said, "and seeing the smiling, happy faces when they're happy with the equipment."

## BUSINESS BRIEFS

## Caterpillar chairman Doug Oberhelman to retire

■ After more than 41 years with Caterpillar Inc., chairman and chief executive officer Doug Oberhelman has elected to retire, effective March 31, 2017.

During his time as chairman and chief executive officer, Oberhelman has reinvigorated the company's focus on serving customers while also driving a culture of quality and safety. Oberhelman led the company to its highest sales and revenue peak in its 91 year history in 2012, and, since that time, has successfully led the company through the unprecedented downturn affecting their key industries.

The company's board of directors has elected Jim Umpleby, currently a Caterpillar Group president with responsibility for Energy & Transportation, to succeed Oberhelman.

Umpleby, a 35 year veteran of the company, will join the Caterpillar board of directors and become chief executive officer effective January 1, 2017. He joined Solar Turbines Incorporated in San Diego, California, in 1980. Solar, a wholly owned subsidiary of Caterpillar Inc., is one of the world's leading manufacturers of industrial gas turbine systems. Early in his career, he held numerous positions of increasing responsibility in engineering, manufacturing, sales, marketing and customer services. Umpleby lived in Asia from 1984 to 1990, with assignments in Singapore and Kuala Lumpur, Malaysia. The Caterpillar board of directors elected Umpleby a Caterpillar vice president and president of Solar Turbines in 2010. He was named group president and a member of Caterpillar's executive office, effective January 2013.

## Bridgestone names new tire business president

■ Bridgestone Americas, Inc. (Bridgestone) shared that Joseph Saoud has joined the company as president, truck and bus radial, Bridgestone Americas Tire Operations. In this role, Saoud will be responsible for leading the sales activities for the U.S. and Canadian commercial truck and bus tire business, which includes Bandag retreads. He will drive the business' long-term growth strategy and ensure continued value for customers, dealers and fleets.

Saoud offers more than 20 years of leadership experience. Most recently, he served as president, global construction, agriculture and military for Commercial Vehicle Group, Inc. (CVG), a global supplier of a full range of cab and other vehicle related products for the global commercial vehicle market. Prior to his role with CVG, Saoud was president, filtration business unit, Cummins for the last seven years, the global leader in the design, manufacture, distribution and service of diesel and natural gas engines and related technologies.

*A recent study has found that women who carry a little extra weight live longer than the men who mention it.*

## Quest Resource Holding names Sweitzer as COO

■ Quest Resource Holding Corporation, a leader in environmental, sustainability, recycling, and resource management, has appointed David Sweitzer as executive vice president and chief operating officer.

Sweitzer will focus on executing the company's strategy, streamlining operations to increase efficiencies, maximizing margin, developing an operation that is both flexible and highly scalable as well as identifying opportunities for profitable market extensions.

Sweitzer has over 20 years' experience in the waste, recycling, property management, and business services industry. He most recently served as chief sales officer, executive vice president, and senior vice president of sales at SMS Assist, a \$1 billion market cap company. Prior to SMS Assist, he was director of business development at Waste Management as well as client solutions vice president at Oakleaf Waste Management.

While at Oakleaf, Sweitzer was responsible for the creation and development of the firm's industrial business and client solutions department, driving innovative solutions that delivered improved outcomes for clients. He also managed Oakleaf's operations and strategic business planning, improving process flow and standardizing process mapping to increase the efficacy of all departments.

Timothy A. Semones, their former chief operating officer, will be focusing on special projects and overall strategic initiatives as senior vice president of operations.

## Solterra Recycling completes acquisition

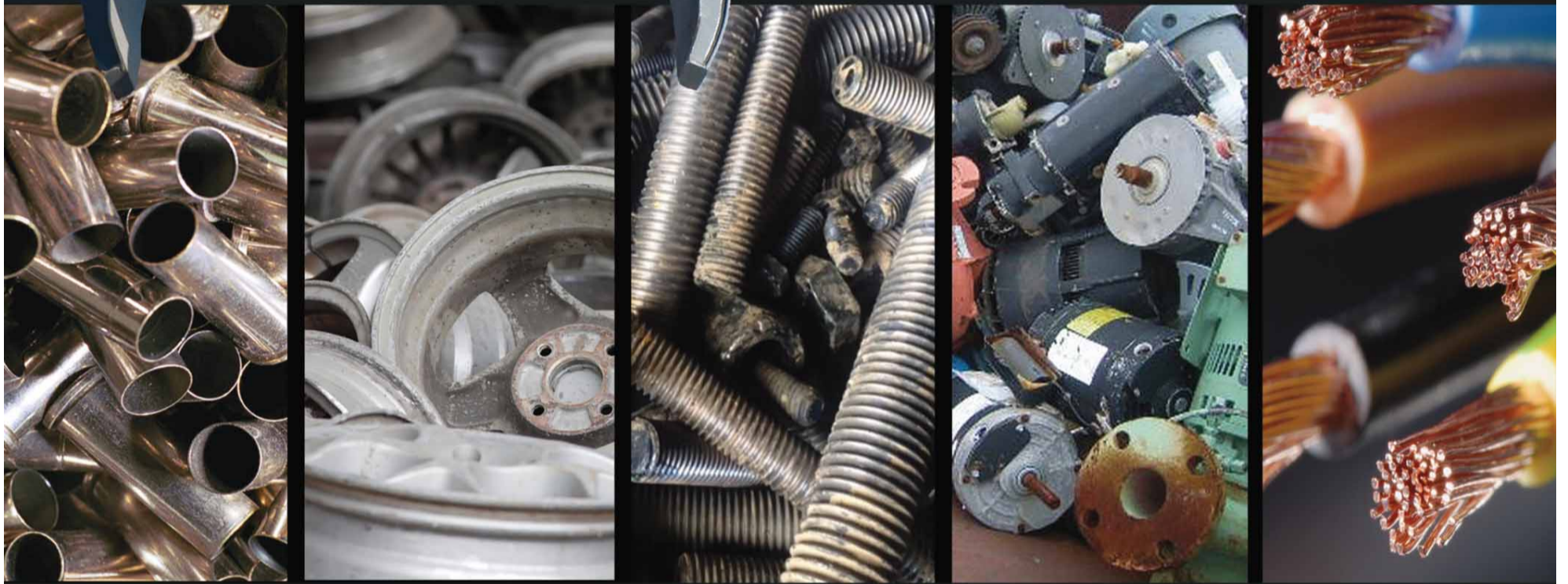
■ Solterra Recycling Solutions has completed the acquisition of Bridge Disposal, a provider of solid waste collection services. Bridge Disposal, based in New Brunswick, New Jersey, services residential, commercial and industrial customers throughout Central New Jersey. The acquisition of Bridge Disposal, which closed on June 30, 2016, comes on the heels of the company's refinancing of its credit facility in April 2016.

Based in Ewing, New Jersey, Solterra is a leading provider of non-hazardous solid waste, organic waste and recyclables collection and hauling services. The company serves over 30 municipalities, 400,000 residential households and 2,000 commercial customers throughout central and north New Jersey and in the Philadelphia metropolitan area.

Solterra was formed to serve as a growth platform with the goal of building a scalable and integrated solid waste focused environmental services operation. Solterra is led by Ed Apuzzi, chief executive officer and Joe LoVerde, chief operating officer, who previously ran Progressive Waste's operations in the northeastern U.S.



Over 2.3 Billion Lbs of Scrap...



...have been sold on this website.

[www.GovLiquidation.com](http://www.GovLiquidation.com)

**Government  
Liquidation**  
A LIQUIDITY SERVICES MARKETPLACE



**DAVE VAN VLEET, SALES MANAGER**  
30+ YEARS OF EXPERIENCE



**JAMIE MILLER, CEO/CONTROLLER**  
30+ YEARS EXPERIENCE



**MIKKI MOORE, ACCOUNTS RECEIVABLES**  
20+ YEARS OF EXPERIENCE



**JIM ADAMS, SALES WESTERN STATES**  
20+ YEARS OF EXPERIENCE



**SHAWN KALKBRENNER, QUALITY CONTROL**  
20 YEARS OF EXPERIENCE



**BRIAN PAULS, SHOP FOREMAN**  
15 YEARS OF EXPERIENCE



**RICK KIELTY, COATING SPECIALIST**  
20 YEARS OF EXPERIENCE



**TOM HARREN, TRANSPORTATION MANAGER**  
20 YEARS OF EXPERIENCE



**Kristy Harren, Elaine Johnson, and Kelly Donabauer**  
Still Original family-owned and continuing strong  
with second generation owners after 44 years!



**R.M.Johnson Co. will be  
here for you and your  
equipment needs  
for years to come!**



**R.M. JOHNSON COMPANY**  
890 Norway Drive  
Annandale, MN 55302  
www.EZCrusher.com

**800-328-3613**  
320-274-3594  
Fax 320-274-3859  
davev@ezcrusher.com

R. M. JOHNSON COMPANY WELDING STAFF WITH AN AVERAGE EMPLOYEE RETENTION OF 20 YEARS! WE PLAN TO BE HERE FOR ALL OF YOUR RECYCLING EQUIPMENT NEEDS.



**JEREMY DHANKE, CNC OPERATOR**  
15 YEARS OF EXPERIENCE



**DON DONABAUER, SERVICE MANAGER**  
25+ YEARS OF EXPERIENCE



**ALAN THIELEN, R & D**  
30+ YEARS OF EXPERIENCE



**LARRY DONNAY, SALES EASTERN STATES**  
30+ YEARS OF EXPERIENCE



**KELLY DANDELKE, PLANT MANAGER**  
20 YEARS OF EXPERIENCE



**JERRY SCHMIDT, SHIPPING & RECEIVING**  
15 YEARS OF EXPERIENCE



**DENNIS HUHN, SERVICE SPECIALIST**  
25+ YEARS OF EXPERIENCE



**PETER VOSSSEN, SPECIAL PROJECTS MANAGER**  
30 YEARS OF EXPERIENCE



**JEFF STUCKELBERG, ROBOTICS WELDER**  
15 YEARS OF EXPERIENCE



# Food waste disposal impacts landfill space

by MAURA KELLER

[mkeller@americanrecycler.com](mailto:mkeller@americanrecycler.com)

Consider this: In the U.S. alone, food waste is estimated at between 30 to 40 percent of the food supply. Based on estimates from USDA's Economic Research Service, approximately 31 percent food loss occurs at the retail and consumer levels. This amount of waste has far reaching impacts on waste disposal strategies and environmental concerns.

Callie Babbit, an associate professor at Rochester Institute of Technology's Golisano Institute of Sustainability, is a leading expert on food waste solutions. According to Babbit, in the U.S., the volume of food waste generated from municipal sources continues to grow, and while efforts to divert organic waste have also been expanding, there is still a significant gap.

"Only about five percent of all food waste is diverted from landfills, mostly through composting," Babbit said. "As a result, food waste is the single largest fraction of the waste stream that is ultimately landfilled. Other waste materials are generated at higher rates but also recycled in greater percentages."

Right now, the bans or regulations on green waste is a state-by-state process. See the states that have policies in place by viewing this article on [AmericanRecycler.com](http://AmericanRecycler.com), however it isn't a federal mandate.

As Babbit explained, currently, only five states and a handful of cities have implemented a policy to ban or reduce the landfill of food waste from large scale generators – typically commercial or industrial facilities producing more than one or two tons of food waste per week.

"However, many of these policies waive recycling requirements if generators are not located close to a composting or anaerobic digestion facility or if food waste recovery costs are significantly higher than landfill tipping fees," Babbit said.

Past efforts to improve recycling of yard trimmings could certainly be a model for broadening food waste recovery. The 2013 U.S. EPA Advancing Sustainable Materials Management: Facts and Figures Report indicated that currently, over 60 percent of yard trimmings are composted instead of being landfilled.

"Efforts to eliminate green waste have grown in response to reduced landfill space, increased landfill tipping fees, the ability to capture value from composting products like mulch, and wider adoption of yard trimming landfill bans or recycling targets," Babbit said. "While over 20 states currently



A significant fraction of food waste can be attributed to consumers' exacting standards for food appearance, particularly for produce, which groceries and restaurants have responded to by disposing otherwise fresh, edible foods with slight blemishes or odd shapes.

PHOTO BY CIVIDINI | DREAMSTIME

have a policy in place to reduce yard trimming waste in landfill, these also are frequently relaxed, particularly for landfills that have methane recovery systems in place.

And it's important to note that food waste policy in the U.S. primarily focuses on commercial entities, rather than households. However, waste generated farther upstream on the "farm-to-fork" supply chain can confound the issue.

"When food waste is generated at a food processing or livestock facility, it is often classified as industrial waste, rather than municipal solid waste," Babbit explained. "Therefore, estimates of waste from commercial and residential systems are only the tip of the iceberg. Depending on the type of food, the cumulative losses during harvesting, production, processing, handling, and packaging, can be between 5 to 25 percent of the net supply chain food waste, with meat and milk on the low end and grain, seafood, and produce on the high end."

#### Key Players in Food Waste

Ronald Mersky, associate professor of civil engineering, and editor of *The Journal of Solid Waste Technology and Management* considers food waste recovery to be "the next big thing" in municipal solid waste management.

"I expect over the next five years to see major increases in separate collection programs and more large-scale

facilities for composting or other processing," Mersky said. "Several factors indicate this including that worldwide there has recently been a significantly increased level of activity in the separate collection and processing of food waste from municipal solid waste.

For example:

- In 2014, the city of Seattle, Washington required separation of food waste and yard waste into separate bins. It is expected this will yield 38 percent of food waste being composted.

- In 2015, France passed legislation that prohibits retailers from placing food that is unsold but edible into the municipal solid waste collection/disposal system. Food retailers are given the options of donation to charities (human consumption), animal feed or composting.

- In 2015, New York City provided separate bins for home-generated food waste collection in some neighborhoods. The collected food waste is composted.

Grocery stores and restaurants have widely varying strategies for combating food waste. According to Babbit, the most ideal case is to stop food from ever becoming waste, either by reducing oversupply or by diverting excess foods to feed more people.

"Many stores offer sales on food that is blemished or nearing its sell-by date; sell food at deep discounts to surplus grocery stores or discount chains;

or donate products to food banks or other non-profit organizations," Babbit said. "And many restaurants, hotels, and institutions have begun diverting waste cooking and frying oil into biodiesel production, which can often offer significant savings over the cost of grease removal and disposal."

These strategies are at the top of the food waste hierarchy, followed in preference by diverting excess food to produce animal feed, converting food wastes to energy or other value-added products, or composting, with landfill being a final option.

According to Victoria Ligon, professor at the Norton School, Family & Consumer Sciences, at the University of Arizona, consumers are increasingly aware that food waste is a significant problem and in some cases, they are pressuring organizations to do something about it.

"Interestingly, consumers and the media often target grocery stores for their wastefulness, when in fact, grocery stores are among the most efficient food handling sectors, and consumers are by far the least – one study suggests that 60 percent of the food waste stream is being generated by consumers in their households," Ligon said. "None-the-less, consumers prefer to look to grocery stores, restaurants and agricultural distribution centers when it comes to food waste and as a

See **FOOD WASTE**, Page B2

# NYC teamsters applaud sanitation reforms

Teamster leaders from across the country are applauding the announcement by the de Blasio administration to overhaul New York City's waste-collection system. The plan seeks to create commercial waste zones throughout the city to reduce traffic, improve recycling and protect workers with higher safety standards.

"For far too long, private companies have operated with total disregard for workers and the communities in which they serve. Sanitation workers perform one of the most dangerous jobs in the country and they deserve the highest level of protection," said Jim Hoffa, general president of the International Brotherhood of Teamsters. "The Teamsters will continue to lead the fight for justice in New York City and across the country so that sanitation workers can win the protections they need to stay safe and provide for their families."

The Teamsters Union represents thousands of public and private sanitation workers in New York City and is part of a growing coalition of labor and environmental organizations dedicated to transforming New York City's commercial trash industry.

"We have been working in the shadows for too long, but Mayor de Blasio is shining the light on this industry," said Sean Campbell, president of Teamsters Local 813, which represents private sanitation workers in New York City.

The announcement comes less than two months after the release of a report, authored by the Transform Don't Trash NYC coalition, recommended more accountability in New York City's sanitation industry through a commercial waste zone policy and other measures. The report also finds that 96 percent of the safety violations committed in the past two years by the largest haulers in New York City were caused by vehicle maintenance, while 3 percent were related to driver fitness and only 1 percent related to unsafe driving.

"The administration collected the data and these facts don't lie. Today's private sanitation industry is grossly inefficient, impacting our roads, air quality and safety. This is the plan we need to create a private sanitation industry that New York can be proud of," said George Miranda, president of Teamsters Joint Council 16, whose affiliate locals represent workers at private companies and at the Department of Sanitation.

Ron Herrera, director of the Teamsters Solid Waste, Recycling and Related Industries Division, praised the fact that the sweeping reforms will hold private sanitation companies to strict environmental and labor standards.

Transform Don't Trash NYC is a growing coalition dedicated to transforming New York City's commercial trash industry to reduce waste and pollution, foster clean and healthy communities and create good jobs.

# Recommendation of coalition in commercial waste overhaul lauded

Don't Waste LA, a coalition committed to lifting standards in Los Angeles' commercial waste and recycling industry, made public comment at the Board of Public Works meeting in support of recommendations made regarding selected waste hauling companies that have met the high standards set by the city.

Zero Waste LA will give all city residents and businesses access to recycling, expand compost collection, reduce truck pollution, improve job quality and set the city on track for diverting 90 percent of its waste from landfills by 2025.

At the meeting, the coalition urged city leaders to make sure that the process to finalize contracts as efficiently as possible to ensure meeting the scheduled launch of July, 2017.

Robert Nothoff, director of Don't Waste LA stated, "We encourage our city leaders to approve the recommendations that have been made by the Board of Public Works after a very thorough application review process. Every day that the city delays its implementation is another day that it sends tons of waste to landfills and fails to create thousands of good green jobs that Angelenos need."

## Food waste

■Continued from Page B1

result, there are some interesting start-up efforts aimed at 'food rescue.'

One of the interesting trends Babbit sees is a greater emphasis on consumer education and awareness, particularly as it relates to their experience at the grocery store.

For example, a significant fraction of food waste can be attributed to consumers' exacting standards for food appearance, particularly for produce, which groceries and restaurants have responded to by disposing otherwise fresh, edible foods with slight blemishes or odd shapes.

"There is a growing interest in promoting 'ugly fruits and vegetables' as a fun way to engage consumers in the food supply chain," Babbit said. Another example is food labeling – most products are marked with "fresh-est by" or "use before" dates that have no uniform or regulatory meaning, which ends up confusing consumers about food safety.

"Efforts have recently begun to examine and propose potential regulation to standardize these labels," Babbit said.

### Looking Ahead

Babbit expects policy will continue to be a key driver, directly and indirectly. "As our understanding of food waste sources and impacts continues to grow, we will likely see additional states and municipalities enact some form of organic waste law," Babbit said. "Many will likely set recycling targets or landfill bans, but I hope that more creative options will also emerge, such as broader tax benefits for organizations who donate unused products to food banks." More start-ups also are creating business models around food waste as it relates to recycling/composting. For example, Compost Cab delivers a bin that people can then fill with food scraps. The company picks up the compostables and leaves you with an empty bin.

"I expect significant increases in separate food collection programs," Mersky said. "While composting is a major recovery method, I think some communities will move towards anaerobic digestion, which offers the advan-

tage of energy recovery while also reducing odor and vector concerns. Anaerobic digestion also can be located within dense urban areas. In agricultural areas, animal feed will probably also be a market for recovered food waste."

Food waste policies will also have significant overlap with other environmental policies. For example, meeting climate mitigation targets will require reducing methane emissions from landfill, for which eliminating food waste disposal is a key strategy. When food waste decomposes in landfills, the methane produced has a climate impact over 25 times greater than carbon dioxide. Similarly, converting food waste to biofuels (e.g., producing bio-methane from anaerobic digestion) is a strategy states can employ to meet renewable energy portfolio standards.

"I hope we will also look to nature as inspiration for solving the growing food waste challenge," Babbit said. "In natural ecosystems, waste as we know it does not exist – materials and nutrients are continually cycled from one process or organism into another. The field of industrial ecology offers solutions that take their cue from closed-loop ecological systems. For example, we might envision creating large-scale bio-refineries, wherein industrial firms co-locate near hubs of organic waste sources, which are used as the 'food' for processes generating value-added fuels, materials, and chemicals."

As Ligon explained, consumer activism around food waste is increasing and consumers are demanding changes from their grocery stores, such as ugly food campaigns in Europe, or that ugly produce startup in San Francisco and even governments such as the French law mandating that food waste be donated.

"In the U.S., we have always been behind Europe when it comes to food waste awareness, but even here consumers are increasingly concerned about food waste," Ligon said. "Given that few consumers recognize how much they themselves are contributing to the problem, and those that do may have trouble figuring out what to do about their own waste, I will not be surprised to see even greater consumer attention paid to grocery, restaurant, and distribution networks in the future."

# BomacCarts

www.bomaccarts.com • sales@bomaccarts.com  
262-882-5000



## Republic Services issues sustainability report for 2015

Republic Services, Inc. released its latest Sustainability Report for the 2015 Fiscal Year.

The report depicts the company's efforts to further improve its environmental and social impacts through decreased vehicle emissions, innovative landfill technologies, use of renewable energy, community engagement, and employee growth opportunities. The 2015 Sustainability Report demonstrates continued progress toward Republic's four sustainability goals, and represents its latest achievements as part of its Blue Planet™ sustainability initiative.

"We are incorporating sustainable practices and programs into every facet of what we do, and this year's report shows continued, strong momentum," said Don Slager, president and chief executive officer of Republic Services.

Republic's sustainability platform encompasses five elements: operations, materials management, communities, safety, and people. Highlights include:

- Operations:** Republic operates a fleet of nearly 2,500 Compressed Natural Gas (CNG) powered vehicles, which represents approximately 16 percent of its entire vocational fleet.

- Materials Management:** Republic is taking a leadership role with customers, municipalities and governments to address the market dynamics affecting the nation's recycling model, while increasing recycling capabilities in several markets across the country. According to the EPA, Republic saves 15 million tons of carbon dioxide equivalents through its recycling operations.

- Communities:** Republic believes serving its 14 million customers goes beyond handling day-to-day recycling and waste needs. At Republic, service is about being a Good Neighbor to the communities where employees live, work and raise their families. In the last year, Republic donated over \$5 million in cash and more than \$6 million in community sponsorships, as well as countless volunteer hours.

- Safety:** Ensuring that employees return home safely at the end of each day is a top priority at Republic. In 2015, Republic continued to achieve a 42 percent better safety record than the industry average, based upon Occupational Safety and Health Administration (OSHA) data.

Republic is committed to achieving the following four sustainability goals by 2018:

1. **Commodities:** Adding an additional 150,000 tons per year or more of recycling capability;
2. **Energy:** Developing at least 2 landfill gas-to-energy projects per year;
3. **Fleet:** Reducing fleet emissions from direct operational impacts by 3 percent; and
4. **Safety:** Reducing OSHA recordable rates by 7 percent year-over-year.

## EPA issues actions to cut methane emissions from municipal landfills

Cost effective updates will strengthen requirements for new, modified and existing landfills and will provide important climate and public health benefits.

The U.S. Environmental Protection Agency (EPA) is taking steps to further reduce emissions of methane-rich gas from municipal solid waste (MSW) landfills. Under the final rules, new, modified and existing landfills will begin capturing and controlling landfill gas emissions at levels that are one-third lower than current requirements, updating 20 year old standards for existing landfills.

Combined, the final rules are expected to reduce methane emissions by an estimated 334,000 tons a year beginning in 2025 – equivalent to reducing 8.2 million metric tons of

carbon dioxide. EPA estimates the climate benefits of the combined rules at \$512 million in 2025 or more than \$8 for every dollar spent to comply.

Methane is a potent greenhouse gas with a global warming potential more than 25 times that of carbon dioxide.

Municipal solid waste landfills receive non-hazardous waste from homes, businesses and institutions. As landfill waste decomposes, it produces a number of pollutants, including air toxics, volatile organic compounds, carbon dioxide, and methane.

MSW landfills are the second-largest industrial source of methane emissions in the U.S. accounting for 20 percent of methane emissions in

2014. Methane from landfills can be cost-effectively captured and used in place of other fossil fuels.

The final rules took into account public comments and additional data and analysis received since the agency issued the proposals in July 2014 and August 2015. These actions update the 1996 guidelines for existing landfills and strengthen the previously proposed rule for new landfills issued in 2014.

In addition, EPA's Landfill Methane Outreach Program provides landfill owners and operators a suite of tools and technical resources to facilitate development of landfill gas energy projects. Over the last 20 years, LMOP-assisted projects have reduced and avoided more than 345 million metric tons of carbon dioxide equivalent.

## Sodexo is reducing food waste in distribution and service industries

Sodexo is making major reductions in both waste and carbon emissions at the facilities, cafés, sport and leisure venues and other food service sites where it operates. The integrated facilities management and food service operations organization manages more the 32,000 client sites worldwide, which means its commitments can have a major impact. By 2025, Sodexo estimates it will have reduced carbon emissions at food service and facilities management sites by 34 percent through simple changes, such as using energy efficient HVAC systems at worksites or repurposing used cooking oil as biodiesel.

"Because Sodexo serves 9,000 sites in North America alone, the impact of its sustainability commitments is more than considerable," said Ted Monk, vice president sustainability and corporate responsibility. "Using just one example, more than 7,300

Sodexo locations in North America recover used cooking oil to turn it into biodiesel fuel. That alone saves 1.3 million pounds of carbon dioxide emissions, which is the equivalent of not driving a car 1.1 million miles."

Throughout North America, Sodexo sites have embraced the culture of sustainability, with more than 7,200 sites recycling aluminum and paper and

8,640 recycle cardboard. The company's efforts to encourage sustainability have added benefits to health. One hundred percent of its cafés offer plant-based choices and 49 percent of menu options are vegetarian or vegan. Not only nutritionally sound, these meal choices can reduce a person's carbon footprint by nearly half that of a meat-based diet.

## Pension plan invests in Advanced Disposal Services

Canada Pension Plan Investment Board (CPPIB) has invested \$280 million in convertible preferred equity securities of a parent company of Advanced Disposal Services, Inc.

Headquartered in Ponte Vedra, Florida, Advanced Disposal is the fourth largest solid waste company in the U.S. and provides integrated, non-hazardous solid waste collection, transfer, disposal and recycling services to approximately 2.8 million residential customers, 215,000 commercial and industrial customers and more than 800 municipal customers across 16 U.S. states and the Bahamas.

**ClearSpan fabric structures**  
1.866.643.1010 ClearSpan.com/ADAR

**WE MANUFACTURE • WE INSTALL  
WE SAVE YOU MONEY**

**BUILDINGS OF 1,000 USES**

<b>Fabric Structures</b> Natural Light & Low Cost Per Sq Ft	<b>Hybrid Buildings</b> Benefits of Metal & Fabric Buildings	<b>Foundation Solutions</b> Build Anywhere & Quick Construction
--	---	--

**ZERO PERCENT FINANCING AVAILABLE** RESTRICTIONS MAY APPLY **MADE IN USA**

# EQUIPMENT SPOTLIGHT

## Primary Reduction

by MARY M. COX

maryc@americanrecycler.com

As landfill space continues to come at an ever-increasing premium, the primary reduction of waste, whether involving food, metal, rubber, etc. can help aid in achieving a lean waste end product.

ECO Green Equipment is a leading specialist in the design and manufacturing of industrial grade rubber processing equipment.

"One of our main products is a primary tire shredder called The ECO Green Giant. This machine is a two-shaft primary shredder exclusively engineered for processing whole scrap tires of all sizes," explained Brad Swenson, managing partner. This machine features a low RPM, high-torque technology that efficiently shreds whole tires into rough rubber shreds,

two to eight inches in size, for use or further downstream processing. Production rates for this primary tire shredder are approximately up to 30 metric tons per hour. "This machine is very popular for our clients as it's the first station in the tire reduction process. From there, processors insert whole tires and can output tire shreds for TDF (tire derived fuel), TDA (tire derived aggregate) and other applications, if desired. To improve performance in the waste reduction process, this shredder includes a patent-pending triangular blade configuration. It provides up to 6 times the life of a traditional shredder blade before sharpening is needed. This drastically reduces wear costs and improves the operator's bottom line," Swenson stated.

He cited the primary challenge in volume waste reduction as equipment wear costs. "Operators want to know the cost to purchase, operate, and maintain their reduction equipment.



Metso Waste Recycling

Depending on the desired size of material output, processors want versatility with their equipment. Output size does dictate the amount of processing time, wear, and energy consumption. Accommodating customer needs is sometimes a challenge but despite that, we see a high demand on size reduction for scrap tires, globally. Demand is increasing as many industries seek smaller tire derived aggregate or chips for numerous uses. Industries such as construction, sport, and energy sectors are using tire



Columbus McKinnon Corporation

derived material as a replacement for natural resources used in the past. Many civil engineers and construction companies are looking to primary reduction output from tires for infill and construction material.

"Another industry challenge is OTR mining tire processing. These large industrial tires, used in a variety of mining vehicles, can be extremely difficult and costly to manage. Many mining organizations bury the used tires to dispose of them. ECO Green has a unique procedure and equipment to shred and recycle these large tires," said Swenson. "We serve all global markets and seek to establish new markets with government, business and organizations that desire to improve their communities and environment," he concluded.

There are many types and sizes of shredders, well suited for waste reduction and recycling, manufactured by Granutech Saturn Systems. Greg Wright, sales manager advised, "Depending on the application, we will most likely

recommend a single, dual, or quad shaft shredder. Choosing one over the other is related to desired throughput, sizing, and material to be shredded. Typical processing volume is between one to five tons per hour, but our equipment can handle much more depending on the material involved and final product size requirements.

Wright noted that challenges vary from one processor to another, depending on the user and industry involved: "For instance, someone who burns waste for fuel will likely face challenges with permits and environmental regulations while someone who processes to recover plastic may be impacted by the price of oil. Low oil prices make plastic processing less cost effective. Striking a balance between throughput, final product sizing, ability to handle contaminants, and system price can be a big challenge."

As the importance of material recovery continues, it becomes necessary to shred the product smaller for better separation, which impacts throughput. "Different levels of waste shredding might range from a coarse shred bound for the landfill, to a finer shred for ferrous metal recovery with a magnet and nonferrous metal recovery via an eddy current separator. Sometimes material is presorted to remove heavy contaminants such as steel pipe, hammers, etc.; other times it is not.

Depending on the requirements, we might recommend one type of shredder over another. We offer shredders with hydraulic, electric, and hybrid drive systems for meeting those various requirements. Providing up to 30 percent higher performance compared to traditional shredder hydraulic drives, our hybrid drive system is ideally suited for waste. It offers a constant horsepower design, allowing for speed and torque variation—for maximum production. Our product line also includes crush-

ers and balers to meet a variety of applications," stated Wright.

See PRIMARY REDUCTION EQUIPMENT, Page B7



Granutech-Saturn Systems

### MANUFACTURER LIST

**3TEK Global**  
Bill Padula  
803-920-0689  
www.3TEK.com

**American Pulverizer**  
James Holder  
314-781-6100  
www.ampulverizer.com

**BCA Industries**  
John Neuens  
414-353-1002  
www.bca-industries.com

**Columbus McKinnon Corp.**  
Richard Colyar  
800-848-1071  
www.cmtirerecyclingequipment.com

**Continental Biomass Industries, Inc.**  
Art Murphy  
603-382-0556  
www.cbi-in.com

**EcoGreen Equipment, USA**  
Brad Swenson  
801-438-6340  
www.ecogreenequipment.com

**Granutech-Saturn Systems**  
Greg Wright  
877-582-7800  
www.granutech.com

**Hammel New York, LLC**  
Gert Semler  
219-929-5824  
www.hammelny.com

**Jordan Reduction Solutions**  
Richard Pyle  
888-733-8248  
www.jordanreductionsolutions.com

Continued on Page B7



## YOUR TRUSTED SOURCE

Products for Every Recycling Application

- Shredders
- Grinders
- Refiner Mills
- Powderizers
- Granulators

**GRANUTECH  
SATURN  
SYSTEMS**

877-582-7800

www.granutech.com

# SIERRA

A RECYCLING COMPANY FROM THE BEGINNING

## High-Performance Two-Ram Balers

- Copper
- OCC
- Paper
- PET
- Cans
- Stainless Steel
- Aluminum
- Extrusions
- Radiators
- MSW

## Single Source Solutions

## High-Performance Auto-Tie Balers

- Reliable Long Lasting
- Reduce Energy Costs
- Reduce Labor Costs
- Maximum Weights
- High Density Bales

## Experience the Sierra difference....

## Highest Production Mobile Balers

waste & recycling expo  
CANADA **BOOTH NO: 1761**

Increase Logging & Baling Efficiency...

★ PHONE: (661) 327-7073 ★ USA: (800) 343-8503 ★ [www.sierraintl.com](http://www.sierraintl.com)

## NEW PRODUCT SHOWCASE



### PELICAN FLASHLIGHT MEETS HIGH QUALITY STANDARDS

The new Pelican™ 7600 LED packs 900 lumens into a powerful, high-performance, compact flashlight. At only 6.19" long it's perfect for a wide variety of applications. It comes standard with three LED colors: white, red and green, and with three modes: high, strobe and medium, which are programmable.

Features include: Full-time battery level indicator, beam distance of 225 meters, 29 hour runtime on low, waterproof and submersible—IPX8 rated, USB lithium ion rechargeable and an unconditional lifetime guarantee of excellence.

**Andax Industries LLC**  
613 West Palmer Street  
Saint Marys, KS 66536  
888-222-2762  
www.pelicanddealer.com



### CAT ENHANCES 2017 MODEL YEAR MATERIAL HANDLERS

The Cat® F Series Wheeled Excavators (M314F, M316F, M318F, M320F and M322F) and Wheel Material Handlers (MH3022 and MH3024) are designed to meet high standards for initial quality, reliability, low operating costs, operator comfort and safety, simplicity of operation and maintenance, and environmental friendliness.

To further enhance overall value, Caterpillar has further refined these product lines' design for the 2017 model year to provide increased fuel efficiency, versatility and operator safety and convenience. Caterpillar updates product design annually to bring new features and enhancements to the market more quickly.

**Caterpillar**  
501 SW Jefferson Street  
Peoria, IL 61614 USA  
888-614-4328  
www.caterpillar.com



### AUTO SELF-CLEANING SCREEN CHANGER MORE EFFICIENT

Nordson Corporation has enhanced the design of its patented "power backflush" V-type screen changer, creating a more compact and efficient system whose continuous operation eliminates downtime.

Nordson's BKG® HiCon™ V-type 3G screen changer uses a hydraulically powered backflush system to automatically remove contaminant while maintaining extrusion throughput and keeping flow and pressure constant. Operationally, the new screen changer has a 30 percent shorter backflush cycle. There is a higher degree of automation resulting from an autonomous parameterizing of the procedure.

**Nordson Corporation**  
28601 Clemens Rd  
Westlake, Ohio 44145  
440-892-1580  
www.nordson.com



### VANTA HANDHELD XRF ANALYZER: REDEFINING RUGGED

Drop tested (MIL-STD 810G) and IP65 rated\*, Vanta analyzers keep you working in tough conditions. The detector shutter enables you to analyze wires and metal shavings with confidence while Axon™ technology delivers accurate, repeatable results in as little as one to two seconds.

Software features, such as SmartSort, Grade Match Messaging and a library of over 700 alloys, maximize user efficiency for a faster ROI. With a customizable user interface, multiuser sorting operations can manage their analyzer fleet efficiently. \*M series analyzers are IP64 rated.

**Olympus America**  
48 Woerd Avenue  
Waltham, MA 02453  
781-419-3900  
www.olympus-ims.com



### FUCHS MHL390 SETS NEW LIFT STANDARDS FOR SCRAP USAGE

Purpose built to deliver the long reach and high lift capacities required in port and high production scrap handling applications, the new heavy duty Fuchs® MHL390 F material handler unseats the MHL380 handler as the largest and most productive machine in the Fuchs product line.

With standard operating weights ranging from 167,990 to 191,000 lbs, this new market standard for high capacity handling offers up to a 72.2' reach for large scrap yards and up to a 80.4' reach, with a banana boom configuration, to reach deep into a vessel's hull in port applications.

**Terex Fuchs**  
200 Nyala Farm Road  
Westport, CT 06880  
877 794 5284  
www.terex-fuchs.com

## EREF awards first Evergreen Surety Bond Scholarship

The Environmental Research & Education Foundation (EREF) has awarded the inaugural Evergreen Surety Bond Scholarship, funded by Evergreen National Indemnity Company, to Gomathy Radhakrishna Iyer, a doctoral student at the University of Texas at Arlington.

Founded specifically to serve the needs of the waste industry and contractors who need payment and performance bonds, Evergreen National Indemnity Company has become an industry leader in surety bonds. Evergreen was one of the first firms to tackle the requirements of Subtitle D and is frequently called upon to give recommendations to regulators and rating agencies on surety issues.

"Ever since the U.S. Congress passed requirements to raise the standards of landfill design in 1993 in the waste industry, our focus has been on how we can help organizations in the industry improve. EREF's Scholarship Program ensures that the next generation of the waste industry will have the knowledge and expertise needed to be successful," said Daniel J. Clark of Evergreen National Indemnity Company.

Gomathy's project, entitled "Development of Landfill Biocovers from Yard-waste to Oxidize Methane Escaping Landfill," primarily focuses on developing landfill biocovers to oxidize surface methane emissions and developing a model based on California Landfill Methane Inventory Model (CALMIM)

for methane oxidation potential. Based on material study (yard waste+biosolids and flyash), biocovers will be designed for methane oxidation for batch tests. Optimization for permeability and moisture content of biocovers will be conducted using column studies, followed by development of a model for methane oxidation potential employing CALMIM, and further field analyses on actual landfill.

Born and raised in India, Gomathy obtained her Baccalaureate in Civil Engineering from Mar Baselios College of Engineering & Technology, University of Kerala, and Master of Technology (M. Tech) from Anna University, India. Her Master's research focused on Solute transport modeling of heavy metal ions of an urban aquifer. Later on, Gomathy continued her research interests at the Indian Institute of Technology Madras (IIT-M) as Research as project associate. During this period at IIT-M, she researched on efficiency of treatment units at wastewater treatment plants of South India and septage management through composting.

She moved to the U.S. to pursue her doctorate in Civil and Environmental Engineering at The University of Texas at Arlington in the fall of 2016. Gomathy's interest is focused on solid waste management, and she looks forward to implementing her knowledge to solve solid waste management problems in India.

## LA Sanitation team achieves Excellence in Technology Award

A software development team from the City of Los Angeles Department of Public Works LA Sanitation Bureau (LASAN) has won a Los Angeles Excellence in Technology award, which is given in conjunction with a local government-technology conference.

Representatives of LASAN will receive an Outstanding Information Technology Project Award at the Los Angeles Digital Government Summit, sponsored by Government Technology magazine.

The Excellence in Technology awards honor innovative technology-initiatives in Los Angeles city and county governments.

The winning LASAN team invented SANStar, a smartphone application that is now used by refuse truck drivers to map and record their daily routes. Previously, drivers had used paper Thomas guides to map their daily routes. The mobile app allows drivers to complete their routes faster and respond to more customer requests.



## EQUIPMENT SPOTLIGHT

To be included in the spotlight, you must **manufacture** the equipment featured. We require a company name, contact person, telephone number and, if applicable, a website address.

To be listed in the appropriate spotlight, please call 877-777-0043.

### UPCOMING TOPICS

- |     |                       |
|-----|-----------------------|
| DEC | Metal Shredders       |
| JAN | Truck Scales          |
| FEB | Plastic Granulators   |
| MAR | Truck Tarping Systems |
| APR | Magnets               |

American Recycler is not responsible for non-inclusion of manufacturers and their equipment. Manufacturers are to contact American Recycler to ensure their company is listed in the Equipment Spotlight.

## Enerkem works to convert MSW into biomethanol

Enerkem's facility in Edmonton becomes the first ISCC certified plant to make the conversion

Enerkem Inc., a waste-to-biofuels and chemicals producer, has obtained certification from the International Sustainability and Carbon Certification (ISCC) system for the biomethanol production of its Enerkem Alberta Biofuels full-scale facility in Edmonton, Canada. This biorefinery therefore becomes the first ISCC certified plant in the world to convert municipal solid waste into biomethanol.

"This reputable third-party certification confirms that Enerkem meets high ecological and social sustainability requirements. Enerkem already sells its biomethanol as a renewable chemical in North America and, with the ISCC certification, we are now adding flexibility to export it as a biofuel in Europe, said Tim Cesarek, senior vice president, business development. With the addition of a biomethanol-to-ethanol conversion module in the sec-

ond half of 2016, this biorefinery will also become the first to sell multiple renewable fuel and chemical products made from waste."

Biofuels used in Europe, such as biomethanol and ethanol, must prove, through third-party certification under an approved certification scheme such as ISCC EU, that they comply with stringent criteria in terms of greenhouse gas savings, sustainability and traceability of the entire supply chain and are compliant with the European Renewable Energy Directive (RED). Under the RED Directive, all EU countries must ensure that at least 10 percent of their transport fuels come from renewable sources by 2020. The RED Directive also gives waste-based biofuels such as Enerkem's methanol and ethanol the advantage to count double towards this 10 percent requirement.

## Material recycling of waste dominates funding for circular economy technologies

Material recycling innovations received the most funding among "circular economy" technologies – innovations that reduce waste or convert waste into valuable new products, according to Lux Research.

Of the total funding of \$668 million from 2011 through the first quarter of 2016, material recycling captured a 69 percent share and accounted for 65 percent of the total 155 deals. Waste-to-energy, a dominant force a decade ago, got 16 percent of the funding, followed by wastewater treatment.

"Waste collection and sorting are experiencing disruptive changes due to the innovations based on software, data analytics, and robotics," said Jerrold Wang, Lux research analyst and lead author of the report titled, "Observing Trends from VC Investment Activities to Material Recycling Fields."

"The sorting segment has a hotspot in robotic-based technologies, and may integrate into collection or processing segments in the future," he added.

Lux Research analysts used Pitchbook data from 2011 to the first quarter of 2016 to evaluate funding for circular economy-related innovations including material recycling technologies. Among their findings:

•U.S. is innovation leader. The U.S. matched Europe in the amount of

investment but saw more deals – \$310 million in funding for 84 deals, compared to \$308 million for 52 deals in Europe. Among individual countries, the United Kingdom led Europe with 11 deals worth over \$10 million in funding.

•Waste processing leads. Within the material recycling segment, waste processing topped funding with a 48 percent share and number of deals with a 42 percent share. Waste collection came second in both, with an identical 36 percent share in both funds and deals. Waste processing was dominated by material-specific technologies, while waste collection had switched from these technologies to software and data analytics.

•Waste collection getting funded in later stages. In terms of funding stage, waste collection got more late stage deals, many related to IT innovations. Seed-stage investment in waste processing covered a wide range of materials, while later stage deals focused on commonly recycled materials.

The report, titled "Observing Trends from VC Investment Activities to Material Recycling Fields," is part of the Lux Research Sustainable Building Materials Intelligence service.

## Over \$1.3 million awarded to Arizona to reduce waste

The U.S. Environmental Protection Agency (EPA) has awarded \$1.34 million to the Arizona Department of Environmental Quality to support hazardous waste reduction and environmental cleanup activities in Arizona, including activities along the U.S.-Mexico border.

This year's funding will be used to facilitate ADEQ's participation in the Border 2020: U.S.-Mexico Environmental Program, and maintain a border enforcement program. In addition, ADEQ will use funds to support sustainable materials management practices, energy efficiency, a fuel efficient fleet, and sustainable water infrastructure.

"These funds help ensure hazardous waste is properly regulated in Arizona and the border area," said Alexis Strauss, EPA's acting regional administrator for the Pacific Southwest. "Arizona has successfully reduced haz-

ardous waste along the border that impacted our public health and safety, shared waters and wildlife habitats."

Last year's funds were used to clean up 29 tons of trash, co-mingled with potential hazardous waste in the Nogales Wash. This effort funded an assessment of trash cleanup needs in the Ambos Nogales border area. Using that information, cleanups were prioritized based on several factors including the amount of debris and proximity to aging sewer lines. The Nogales Wash cleanup averted a possible sewer line break and removed debris including clothing, plastics, rubber hosing, car parts, vegetation, construction and demolition materials, and metal.

Since 1995, the EPA has awarded Arizona over one million dollars per year to support hazardous waste inspections, enforcement, permitting, and program management.

## Primary Reduction Equipment

■Continued from Page B4

Metso Waste Recycling products include waste shredders, pre-shredders and fine-shredders and their products are used extensively in hazardous waste plants, waste-to-energy plants, MBT plants, landfills, RDF plants and composting plants globally. Both stationary and mobile shredders are available – mobiles, both as track and wheel mounted, and stationary shredders tailored for use in recycling facilities. A wide range of models and configurations (shafts, knives and cutting table sizes) enables a shredder fit for every purpose. Capacities range from 20 to 200 tons per hour.

"The waste handling industry is evolving fast and customers need efficient, reliable equipment that will do the job. Waste streams can vary extensively, challenging all quality parameters of the shredding process. Serviceability is key, and the running cost plays a vital role for waste handlers. Our answer to these challenges is a globally proven, unique design – made to last, providing customers with superior return on investment," Uffe Hansen, director, waste recycling, said.

He added, "Reducing waste is a tough job. So, excellent service is crucial for waste handlers. This is why Metso offers the strongest network of service hubs and distributors available, to ensure customer care is never far away. Landfill use is still predominant in the U.S. while recycling trends move forward in the US and globally. This calls for intelligent solutions for materials recovery facilities (MRFs). Efficient, continuous and homogeneous shredding is key to optimal sorting later in the cycle.

"Material handling is about getting valuable materials back from the waste stream. Metso has been leading the shredder market for

the municipal solid waste market and provides unparalleled solutions in that field."

### MANUFACTURER LIST (Continued)

**Jomar Machining & Fabricating, Inc.**  
Lavon Detweiler  
574-825-9837  
www.4jomar.com

**Komar Industries, Inc.**  
Mandy Howenstine  
614-836-2366  
www.komarindustries.com

**Komptech USA**  
Brandon Lapsys  
720-890-9090  
www.komptechusa.com

**Lindner America LLC**  
Andreas Schwarz  
919-783-7719  
www.l-rt.us

**Metso Waste Recycling**  
Dorthe Larsen  
803-699-4200  
www.metso.com

**Republic Machine**  
Kirk Winstead  
977-637-6778  
www.republicmachine.com

**Shred-Tech**  
Joe Roberto  
800-465-3214  
www.shred-tech.com

**SSI Shredding Systems, Inc.**  
Terri Ward  
503-682-3633  
www.ssiworld.com

**Vecoplan, LLC**  
Kim James  
336-861-6070  
www.vecoplanllc.com

**Weima America, Inc.**  
Madison Burt  
888-440-7170  
www.weimaamerica.com



**Invaluable Gifts are Hard to Find**

Purchase a gift subscription for someone special today.

877-777-0043

www.AmericanRecycler.com



View Used  
Equipment For Sale  
on DADECapital.com!

# REBUILT GRANUTECH GRIZZLY

## 300 HP Motor

Comes with Stand  
and  
Electrical Panel

\$195,000



**FINANCING AVAILABLE! ONE-PAGE APPLICATION**



[www.DADECapital.com](http://www.DADECapital.com)  
Call or Click Today



DADE Capital Corp.  
**800-823-9688**  
[www.DADECapital.com](http://www.DADECapital.com)

## COMPLETELY REBUILT MUTLI STACK COLUMBUS MCKINNON SHREDDER & MORE



NEW Hardened Rotors with Inserts  
NEW Shafts • NEW Bearings  
NEW Seals • NEW Knives  
Reconditioned Dodge Box  
Reconditioned 2-speed Gear Box  
Rebuilt 300HP Motor

\$275,000