



American Recycler

NewsVoice of Salvage, Waste and Recycling

AmericanRecycler.com

FOCUS: Waste

Embracing alternative energy waste vehicles



WHAT'S INSIDE

Scrap Metals MarketWatch..... 10
 Salvaging Millions..... 12
 Classified Advertisements..... 15
 Equipment Spotlight..... B4
 New Product Showcase..... B6

- U.S. tire shipments expected to decrease in 2020. Page A6
- ArcelorMittal reports 23 percent decline in shipments. Page A10
- Organizations team up to remove unsafe recalled parts from circulation. Page A13

Contamination in recyclables decreases product quality

by MAURA KELLER

mkeller@americanrecycler.com

As municipalities moved to single stream recycling, they saw a significant increase in recycling participation on the part of consumers. The bad news is upwards of 25 percent of single stream recycling is contaminated.

As 4G Recycling president, Brent Kirstein explained, curbside recycling used to be source separated by commodity. But recyclers eventually pushed single stream recycling because they assumed China would always buy U.S. waste.

“The commingling of these waste grades did lead to greater quantities being recycled, but the quality declined significantly,” said Kirstein. “It’s nice to have greater participation, but less ends up being recycled because of contamination.”

According to Kirstein, many contaminated plastics are found in residential programs where all plastics are thrown together. This stems from a lack of education surrounding what to recycle.

“Most contamination comes from residential and commercial single stream recycling, as people often try to recycle household or other objects that are not recyclable,” Kirstein said. In the space 4G Recycling plays in, they deal directly with manufacturers and, as such, see less contamination than many industry peers. Although no recycling company is completely immune from contamination, every grade of waste has potential contaminants that affect the value of the commodity.

“As an example, plastic grocery bags are a problem right now because they keep getting mixed together with other plastics,” Kirstein said. “Bag manufacturers and end users want certain types of plastics not all.”

In addition, plastic containers often contain food waste that is undesirable and can cause contamination. “Since the Green Fence program in China began a few years back, we have seen tremendous inconsistency with plastics and quality requirements,” Kirstein said. “This is compounded with single use plastics and straws becoming less and less popular.”

As an experienced environmental resource analyst for the Ventura County Public Works Agency, environmental program coordinator David Goldstein is an expert in all things recycling – from composting food, reducing waste to electronic waste. According to Goldstein, Ventura County, California’s local sorting centers report that the worst contamination in residential curbside recycling carts is plastic bags and polystyrene. Bags can wrap around and clog equipment, and polystyrene blows off piles and is difficult litter to pick up.



When people are careless with inclusion of non-recyclables in their bins, it makes the end product a lower quality than it would otherwise be.

PHOTO BY CHERNETSKAYA | DREAMSTIME

Goldstein pointed out that in curbside recycling carts, contamination isn’t really the major barrier to recycling plastics #3 through #7 and non-bottle plastics #1 and #2. The problem is markets.

“There aren’t enough companies making products from those plastics,” Goldstein said. “China used to take those plastics, but they and others have shut off imports of some grades of plastic, regardless of contamination levels, and they set standards for other plastics they know we have no chance of meeting.” However, Ventura County is not removing plastics #3 through #7 from curbside recycling programs.

“We want those still in curbside recycling carts as we find new markets for the material and as we try to develop more domestic companies capable of making products from those items,” Goldstein said.

In Goldstein’s experience, contamination of plastics is more of an issue with large, single stream commercial and industrial generation of plastic. For example, agricultural film plastic can come off strawberry fields with so much mud stuck to it, the weight of dirt exceeds the weight of the plastic.

“Dirt wears out recycling equipment and lowers the value of materials to the point where landfilling is less expensive than recycling,” Goldstein said.

In September 2016, Governor Brown signed SB 1382 into law, establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants (SLCP) in various sectors of California’s economy

“With SB 1383, the focus of diversion mandates has shifted from plastic/metal/paper to organics,” Goldstein

said. Organics are things capable of rotting. Yard waste is increasingly being turned into mulch and compost. Edible food discards are increasingly being recovered by food rescue organizations and fed to hungry people. In the near future, more non-edible food waste will be included with yard waste in recycling/composting programs. In the meantime, food waste is a contaminant in yard waste bins.”

And in the area of metals, contamination and commingling can result in lower value grade of waste. Metals, like other commodities, need to be baled by commodity grade. A lot more work is being done to separate out higher valued grades like copper.

Chris Wirth, vice president of marketing, business development, and policy for AMP Robotics said that metals like aluminum are susceptible to the same contamination challenges as other materials in the single stream.

“Single stream recycling has elevated recycling participation and increased the overall amount of materials entering recycling programs, yet also increases the risk of commodity contamination and incorrect consumer recycling habits,” Wirth said.

By weight, aluminum is the most valuable recycling commodity. According to a recent report for the Can Manufacturers Institute conducted by Gershman, Brickner & Bratton, Inc., in 2019, used beverage cans (UBCs) made up 12.5 percent of potential revenues in MRFs in bottle bill states, and 33 percent of potential revenues in MRFs in non-bottle-bill states – more potential revenue than any other commodity.

See CONTAMINATION, Page A14

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

09.2020

CHANGE SERVICE REQUESTED

American Recycler

1789 Indian Wood Circle, Ste 250
Maumee, OH 43537



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 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 VOSSEN, SPECIAL PROJECTS MANAGER
30 YEARS OF EXPERIENCE



JEFF STUCKELBERG, ROBOTICS WELDER
15 YEARS OF EXPERIENCE

All aircraft can and should be recycled

The increase in decommissioned commercial aircraft and crowded aircraft boneyards are prompting more aviation industry executives to reconsider how best to repurpose those planes in the recycling phase. Sven Daniel Koechler, PhD, managing principal and general manager of North American Aerospace Industries Corporation (NAAI), has taken a staunch view of how much more can be done with recycled aircraft.

Koechler, who is making a \$100 million investment in the construction of a new state-of-the-art aircraft recycling facility in Kinston, North Carolina's Global Transpark, a 2,500 acre, multi-modal industrial airport site, believes that 100 percent of an aircraft can and should be recycled. Moreover, his position is that, after the aircraft owners, manufacturers and other industry players have an opportunity to recover or purchase reusable parts or materials from an aircraft, the remainder should be put to good use. Specifically, Koechler is of the opinion that social causes could be effectively addressed by up-cycling any remaining aircraft parts and materials from a retired commercial aircraft. He said the company believes that it will be able to recycle 100 percent of the non-liquid aircraft components in the future.

"At present, 85 to 90 percent of most aircraft is being recycled," said Koechler. "First, we need to increase that number to 100 percent and recognize that, instead of placing the remaining 10 to 15 percent in landfills where it has negative impacts on our environ-



ment, we can give those materials a new life which in turn, will help give a new life to those in need. In the U.S. alone, there are over 38 million Americans, many of whom are children, living in poverty based on the last U.S. Census in 2018. They don't have proper clothing or housing. There's no reason why remaining materials from retired aircraft can't be recycled to produce footwear, clothing, hats, coats, gloves and even tiny homes for those in need."

Even before the pandemic, several hundred aircraft were being retired each year. Over the next 10 years, FlightGlobal estimates that as many as 17,000 aircraft may be decommis-

sioned. While there has been a movement toward a more sustainable aviation industry, less emphasis has been on meeting social needs through aircraft recycling as Koechler urges. Beyond recycling for applications within the aviation industry, there has been an emphasis on other commercial, for-profit applications. These include aviation-themed art, as well as home and office furnishings, accessories including handbags and belts, sporting goods, and even travel-related items such as luggage.

"An average commercial aircraft has an estimated 800 to 1,000 parts that can be recycled. The most valuable of these are the engine, landing gear,

avionics and electronics. Once these components and parts are removed, overhauled, tested and recertified, they can be repurposed back into aviation," continued Koechler. "The remaining materials including aluminum, copper and various alloys can go to recycling facilities and returned to the raw material supply chain. That leaves many interior components such as seating, overhead bins, cabinets and walls, which are largely comprised of composite materials such as carbon reinforced polymers. These can be responsibly recycled to meet critical social needs. I challenge the industry to start thinking and acting to create a more sustainable and socially-minded view of aircraft recycling."

Koechler is not alone in his thinking. There are examples on both the OEM and airline side of conscientious organizations looking to meet other important goals through aircraft recycling. As early as 2005, Airbus launched a new aircraft recycling initiative, PAMELA, which was a pioneering program in advancing recycling from what was then the industry standard of 60 percent of an aircraft to a goal of 85 percent, which is now the industry average. For its part, Southwest Airlines started its "Repurpose with Purpose" initiative. It has resulted in the repurposing of some one million pounds of aircraft seat covers to produce numerous goods and, on the social side, create new jobs and training opportunities for veterans, individuals with disabilities, human trafficking victims and others.



Maximize your Stainless Steel Recovery with Bunting's Stainless Steel Separation Conveyor (SSSC)

- Patented High-intensity Neodymium Magnetic Circuit magnets deliver intense power to pull out Shredded stainless steel.
- Remove up to 94% of large fraction stainless steel and up to 98% of small and mid-fraction 300 series stainless steel.
- Achieve higher product purity and the greatest scrap metal recovery profitability with the SSSC.
- Our engineers will test your material and design your specific SSSC System to suit your exact needs.



800.835.2526 or 316.284.2020 / Sales.Newton@BuntingMagnetics.com

Visit BUNTINGMAGNETICS.COM

Interns to increase awareness about the importance of proper recycling in Maine

Nearly 40 percent of the everyday goods Mainers purchase, from laundry detergent to toilet paper, and the packaging that these goods arrive in, depend on post-consumer recyclables to meet consumer demand. However, contamination – or trash – in recycling bins can offset the benefits of these materials by degrading the quality and usability. In response, interns from ecomaine will be helping to educate Maine residents about which bin their waste should go in.

Ecomaine has hired interns to tour recycling and trash collection routes in areas of South Portland and Westbrook where data indicates levels of higher contamination. Interns will

review residents' bins and provide educational feedback on the importance of recycling – and recycling properly. Interns will work in a portion of each municipality during the summer and fall; residents living in these areas will receive mailed notification about the program. The program may expand beyond the two municipalities, as the program progresses.

During interns' inspections, they will issue green tags for a job well done, yellow tags for loads that have one or two items that are not recyclable, and red tags for loads with too many items that cannot be recycled – including trash. The bins with red tags

are considered contaminated and increase costs for the municipality. Therefore, they will not be picked up. The tags will identify item(s) that do not belong in the recycling cart; loads with red tags cannot be collected.

"We learned a great deal in our 2019 pilot program about the importance of education and the impact these interns can have," said ecomaine chairman Mike Shaw. "We are glad to be providing educational support to our member communities again this year and we are grateful for their partnerships."

This is the third year South Portland has been part of such a program. As such, they know the value of education in solid waste management. "We saw a decrease of 6 percent in citywide recycling contamination during last year's internship," said Sustainability director Julie Rosenbach. "We know that this can work, and we're glad to be a partner in it again this year."

In addition to inspecting recycling, interns will also have additional resources on recycling and trash and how to dispose of particular items.

Turn your waste into revenue

At CPM Di Più, we're helping our customers turn millions of tons of industrial waste and metal swarf into millions of dollars of new revenue streams—**not to mention saving the planet.**

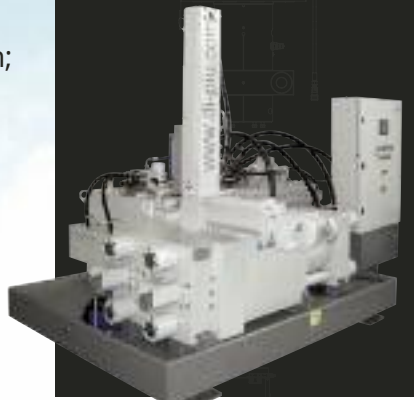
Whether it's recovering metal and wood waste from industrial production; reducing volume, transport, and storage costs; or simply recycling waste into energy, with CPM Di Più, you get a powerhouse of briquetting technology.

CPM Di Più customers have access to our complete and combined solutions, our world-class equipment, and our enviable aftermarket support.



BRIK Series

Our Mechanical (MB) machines use low energy and are designed for applications in biomass, plastics, agricultural waste, and more.



METALBRIK Series

Our Hydraulic (HB) presses are designed for metal waste densification.



For more information, visit cpm.net or call 1-800-428-0846



DI PIÙ SYSTEMS
Your Partner in Productivity

1114 East Wabash Ave. | Crawfordsville, IN 47933 - USA

Events

September 14th-17th

WasteExpo TOGETHER Online.
203-523-7044
www.wasteexpo.com

September 22nd-24th

2020 Annual MORA Conference.
Hilton-Branson Convention Center,
Branson, Missouri.
573-491-4255
www.moraconference.org

October 4th-7th

Strive For Sustainability: Solid Waste and Recycling Conference with Trade Show. ~~CANCELLED~~
The Sagamore, Bolton Landing,
New York.
www.conference.nyfederation.org

October 20th-22nd

Northeast Recycling Council (NERC) Fall Virtual Conference.
802-254-3636
www.nerc.org

November 9th-13th

77th Annual ARA Convention & Expo. EDGE 2020.
571-208-0428
www.a-r-a.org

December 7th-10th

SWANA WASTECON. Gaylord Texan Resort & Convention Center, Grapevine, Texas.
888-744-1449
www.wastecon.org



877-777-0043 | Fax 419-931-0740

Owner, Publisher and Editor

ESTHER G. FOURNIER
news@AmericanRecycler.com

Print and Digital Production

MARY E. HILL
mary@AmericanRecycler.com

Marketing Representatives

MARY M. THORNTON
maryt@AmericanRecycler.com
MARY E. HILL
mary@AmericanRecycler.com

Circulation Manager

DONNA L. MCMANUS
donna@AmericanRecycler.com

Writers and Contributors

MAURA KELLER
mkeller@AmericanRecycler.com
RON STURGEON
rons@rdsinvestments.com
MARY M. THORNTON
maryt@AmericanRecycler.com

Production Offices

1789 Indian Wood Circle, Ste 250
Maumee, OH 43537
877-777-0043 fax 419-931-0740
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. US 1 year \$48; 2 years \$72.

©COPYRIGHT 2020 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.

Carpet recycling rate is up

Carpet America Recovery Effort (CARE) has released its 2019 Annual Report detailing the industry's progress despite growing headwinds in 2020.

In 2019, CARE administered a \$35 million operational budget with progress in 2019, including:

- More than \$2 million was paid in VPS subsidies in 2019.

- Total gross U.S. collections were 335 million pounds, up from 281 million pounds in 2018.

- 98 percent of post-consumer carpet collected was processed in the U.S.

California Carpet Stewardship Program Highlights

- 82.1 million pounds of post-consumer carpet was collected before it could go to landfill.

- 58 million pounds of recycled output was produced (up 18 percent from the 49.3 million pounds recycled in 2018).

- The overall 2019 California recycling rate was 19.1 percent, up 25 percent versus 2018.

Positive news in 2019 included new

members joining the recycling effort, new technology introduced, and new products being developed and brought to market. Of particular note is the advance of chemical recycling and the volume of recycled material it could command once fully implemented. As CARE executive director Bob Peoples noted, "Progress was strong in 2019, and there was optimism for the first time in a long time for carpet recycling."

The report includes a brief update on events in 2020, "Unfortunately, the carpet industry was not immune to the recession, which resulted in plant closures and more than 10,000 jobs lost or furloughed. A difficult decision was made by the carpet industry leadership to terminate the VPS program effective June 30, 2020 to help offset lost revenues. This challenge is compounded by the potential for additional COVID-19 impacts as the economy moves to restart in the later part of Q2. Of equal concern is the loss of carpet recyclers and associated infrastructure during this recession."

Republic Services donates masks to essential workers

Republic Services, Inc. announced the donation of 100,000 N95 masks to assist essential service providers in Atlanta and in Rutherford County, Tennessee, amid the COVID-19 pandemic. The donation will provide much needed support to healthcare workers at Atlanta's Grady Memorial Hospital, the largest public hospital in Georgia, and help keep first responders safe in Rutherford County.

"As an essential service provider ourselves, Republic Services understands what it means to have employees on the job every day, taking care of our communities," said Jon Vander Ark, president. "Throughout the pandemic, we have been unwavering in our mission to take care of our people, our customers and the communities where we live and work. With this donation, we are proud to honor the work of those who are providing life-saving services during this critical time."

The donation of personal protective equipment is an extension of Republic's "Committed to Serve" initiative. Committed to Serve is a \$20 million initiative to recognize Republic's frontline employees and to help support small business customers that are the economic engines of local communities. Across the country, Republic has contributed \$3 million to its charitable foundation to support the rebuilding of small businesses and invested \$17 million back into local economies through gift cards and meals for employees and their families.

In Atlanta, the donation of 40,000 masks will support the 3,000 doctors and other medical personnel on the frontlines of the COVID-19 pandemic at Grady Hospital, a Republic customer. In Rutherford County, 60,000 masks will help protect first responders, county personnel and the community.

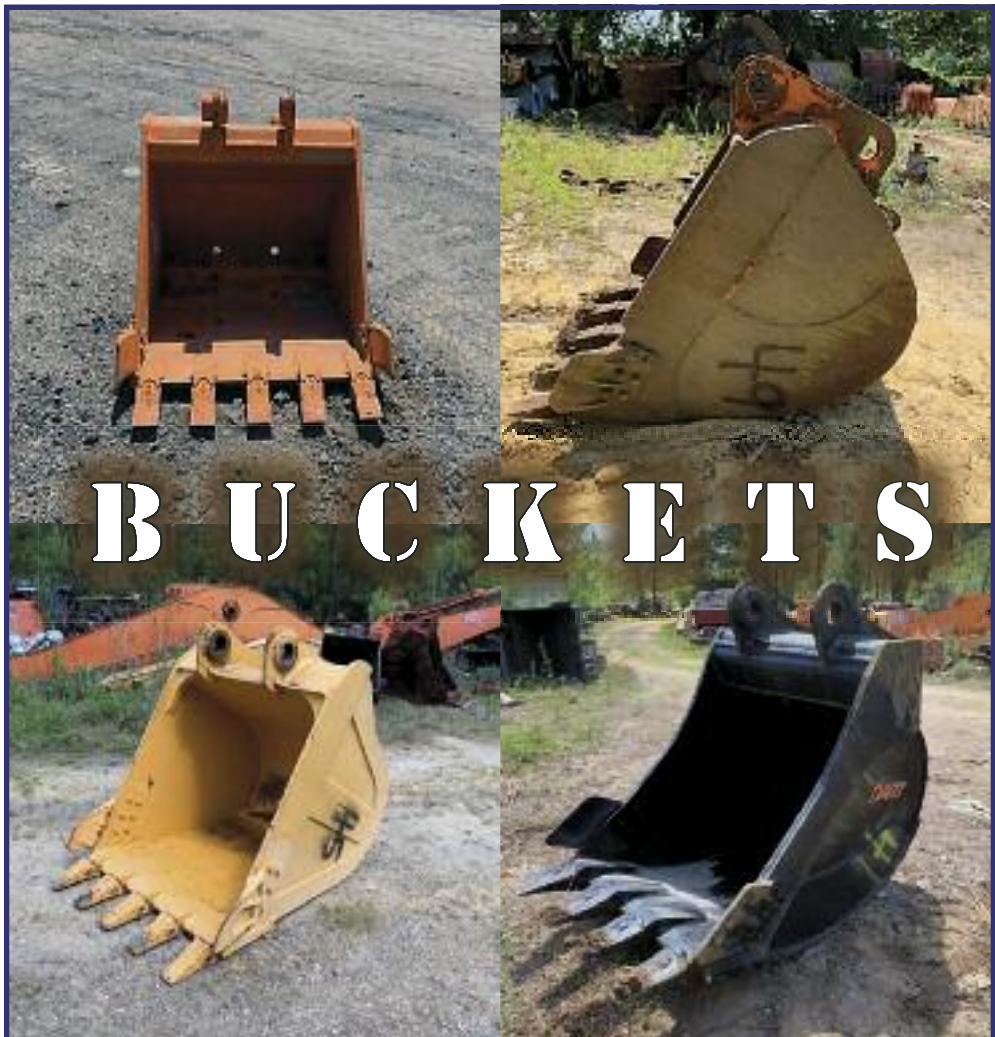
The Recycling Partnership names board

The Recycling Partnership is a national nonprofit that guides corporate funding to improve recycling results in communities across America.

Fifteen industry leaders were elected to serve on The Recycling Partnership's board of directors. The newly elected directors include:

Steve Alexander (chief executive officer and president, Association of Plastic Recyclers), Viviana Alvarez (head of Sustainability, Unilever North America), Derric Brown (vice president of sustainability, Carton Council), Maria Burquest (corporate communications-citizenship, Procter & Gamble), Kim Carswell (director of Packaging, Target), Keith Christman (acting vice president Plastics Division, American

Chemistry Council), David Clark (vice president of sustainability, Amcor), Nicole Collier (director of government affairs, Nestle), Megan Daum (vice president of sustainability, American Beverage Association), Scott DeFife (president, Glass Packaging Institute), Aimee Gregg (vice president & general manager, recycling and recovered fiber, International Paper), Brian Hawkinson (executive director of Recovered Fiber, American Forest & Paper Association), Bruce Karas (vice president of environment & safety, Coca-Cola North America), Terese Kietzer (senior manager of sustainability, Amazon), and Monique Oxender (Chief sustainability officer, Keurig Dr Pepper).



BUCKETS

Large inventory of EXCAVATOR BUCKETS in stock!

Many brands including Dart, Doosan, CF, Geith, PSM, Liugong, and more!

View our full inventory: www.ironax.com/excavator-buckets



HYDRAULICS

We manufacture and repair all types of cylinders of any size. We have over 45 years of experience and specialize in the custom manufacturing of hydraulic cylinders.

We service all sorts of forestry, earth moving, and heavy equipment. We're skilled with excavators, feller bunchers, dozers, forestry equipment, loggers, mini excavators, pavers, skidders, skid steers, track drills, track loaders, and many other kinds of heavy equipment.



SERVICE

If you need work done on your equipment's undercarriage parts or need regular maintenance tasks to be completed, call us today!

IRONAX

877-247-6629
www.IronAx.com

PLASTICS

Ineos Styrolution and Recycling Technologies to recycle polystyrene

Ineos Styrolution, a leader in styrenics, and Recycling Technologies, a specialist plastic recycling technology provider signed a joint development agreement to further advance the development of recycling of polystyrene in Europe. Both companies share the same goals to make plastics a sustainable material. This agreement recognises the commercial value of post-consumer plastic waste to prevent this important resource being incinerated or ending up in landfills.

Ineos Styrolution has extensive knowledge and expertise in polymer science and production backed by its advanced technology and process.

Recycling Technologies possesses extensive knowledge, technology and expertise in the area of building reactors, suitable to thermally recycle mixed plastics using pyrolysis.

Recycling Technologies has already completed a detailed research and trial process with Ineos Styrolution. This activity included scientific research and processing of polystyrene on Recycling Technologies' Mark II test reactor producing excellent results. Both companies will now further advance this depolymerisation solution based on Recycling Technologies'



fluidized bed technology, currently used for mixed plastics to adapt it for the commercial recycling of polystyrene.

Ineos Styrolution and Recycling Technologies believe depolymerisation has the potential to close the loop, creating a circular economy for polystyrene making the material a more valuable polymer. This recycled polystyrene has the potential to meet the high specifications demanded for food packaging regulations making it attractive to the food industry.

RUBBER

July tire forecast shows U.S. tire shipments expected to decrease in 2020

JULY FORECAST: USTMA 2020 Projected Tire Shipments

ORIGINAL	2019	2020 Estimated	% Change	Units +/-
Passenger	46.3	34.9	-24.5	-11.3
Light Truck	5.9	4.6	-21.0	-1.2
Truck	6.5	4.4	-32.6	-2.1
REPLACEMENT				
Passenger	22.6	188.7	-15.2	-33.9
Light Truck	32.5	28.7	-11.8	-3.8
Truck	18.9	18.0	-5.0	-0.9
TOTAL	332.7	279.4	-16.0	-53.3

ALL SHIPMENTS IN MILLIONS. FIGURES ARE ROUNDED.

As the U.S. economic downturn continues during the COVID-19 pandemic, the U.S. Tire Manufacturers Association (USTMA) projects 2020 U.S. tire shipments will decrease to 279.4 million units in 2020 compared to 332.7 million units in 2019.

This forecast represents a small improvement of 5.8 million units from USTMA's April 2020 forecast adjustment, which was the first preliminary estimate after the declaration of the COVID-19 pandemic.

Compared to 2019, original equipment shipments for passenger,

light truck and truck tires are expected to decrease by 24.5 percent, 21.0 percent and 32.6 percent respectively, with a total reduction of 14.7 million units.

Replacement passenger and light truck tire shipments are projected to decrease by 15.2 percent and 11.8 percent respectively, with truck tire replacement shipments showing the smallest decline at 5.0 percent. The total unit reduction for replacement tires is projected to be 38.7 million units.

**HIGH SPEED
AUTO TIE BALERS**

**INDUSTRY FIRST
90 DAY
MONEY
BACK
GUARANTEE!**

**3 YEARS
PARTS & LABOR
INCLUDED**

**YEAR 4 & 5
AVAILABLE FOR
PURCHASE**

800.253.0532
WWW.SEBRIGHTPRODUCTS.COM

METALS

Arconic held accountable for natural resource impacts

New York State Department of Environmental Conservation (DEC) Commissioner Basil Seggos announced a landmark agreement between DEC and Arconic, Inc. Under the agreement, Arconic will provide more than \$2.25 million to protect and restore critical habitat at the Grasse River Federal Superfund site in Massena, New York. Arconic is required by the U.S. Environmental Protection Agency (EPA) to clean up contamination in the Grasse River, but was not being held to New York State's stringent standards for habitat protection, driving DEC to reach this agreement and help save critically important freshwater mussels and other natural resources.

The Alcoa Massena-West Plant is an aluminum production plant on the north shore of the lower Grasse River. In the 1950s, Alcoa began using and discharging PCBs through outfalls to the Grasse River, contaminating water and sediment with PCBs. The cleanup selected by EPA for the Grasse River began in 2019, and includes dredging and backfilling approximately four miles of shallow water habitat and capping approximately 6.5 miles of deep-water habitat with clean material.

During the cleanup selection process, DEC made it clear to EPA that specific habitat reconstruction requirements must be included to comply with

New York's stringent environmental laws and regulations. Although EPA stated in the Record of Decision (ROD) that the remedy must meet these requirements, the federal environmental agency failed to incorporate DEC's requests and, in 2019, approved a cleanup that did not incorporate the State's habitat reconstruction requirements. At that point, DEC notified Arconic that the remedy as designed did not comply with state laws and regulations and started its effort to address these deficiencies.

The final settlement (PDF) provides \$2.25 million to DEC for mussel relocation activities. It also requires Arconic to fund contract divers to assist DEC and the Saint Regis Mohawk Tribe (SRMT) with mussel salvage operations.

Above and beyond the payment and funding the diving operation Arconic agreed to incorporate more suitable habitat material to promote success in relocating mussels after the river bottom is capped, install 400 structures in the bottom of the river for suitable fish habitat, and restore several wetland areas along the river with higher grade materials and native plants. Arconic will also provide its own divers to recover additional freshwater mussels.

SHREDDING EXCELLENCE

for over 40 years!



ONE



TWO



FOUR

WheelPopper

Separates scrap tires from steel & alloy wheels in seconds

Save *time* and *money!*

From \$6,950



- Buy direct from the manufacturer
- World wide delivery to your door



AutoDrain
Experts in vehicle depollution

sales@autodrain.net
www.autodrain.net

YOUR THREE BEST OPTIONS FOR SIZE REDUCTION

No matter what material size reduction requirements you have, we have the heavy-duty equipment and heavy-hitting engineers to address your needs. For more than four decades, we've been the durable, versatile shredder 'Brand of Choice' for demanding applications all over the planet.



RUBBER, PLASTIC, E-SCRAP... AND MORE!

Contact us today for a quotation and project overview!

877-582-7800
www.granutech.com



See all equipment at www.DADEAuctions.com!



VULCAN FOX MODEL 2C-40 CUT-OFF SAW
40" blade. Includes overhead crane.



CP200 CAN FLATTENER
Recently rebuilt!



1999 BARCLAY ROTO-SHRED TIRE SHREDDER
Bearings and frame are in good shape.



2018 RM JOHNSON A+ E-Z CRUSHER
John Deere engine. Only 865 hours!



GLOUCESTER GRANULATOR MODEL G1842-5K
48" rotor, 100 HP motor.



2015 WENDT TOMRA X-TRACT
Dismantled and ready to ship!



2002 OVERBUILT MODEL 10 CRUSHER
No leaks, runs well. Missing remote.



WOLVERINE TIRE DEBEADER
Light truck and passenger tires.



OVERLANDER 1650-TON SHEAR
Model HY10. 800 HP.



PEMBERTON ENGINE PULLER
Previously used on a Volvo. Good condition.



STRIP-TEC MODEL 600 WIRE GRANULATOR
Includes a Worldwide pre-chopper.



1995 AL-JON PROTOTYPE IMPACT V
Only 1,100 hours. Great condition!



48" ALUMINUM WOUND OHIO MAGNET
Good condition. Includes harness and shackles.



2015 WENDT NON-FERROUS SYSTEM
Excellent condition. Ready to ship!



CLEMENT HIGH-SIDE END DUMP TRAILER
Has passed recent DOT inspections!

Financing available at DADECapital.com

Sell YOUR equipment with us, call today: 844-222-2020



2007 SIERRA S6000 PORTABLE BALER
Only 215 actual hours!



TRUCK TIRE DEBEADER & DERIMMER
Completely rebuilt! 60 tires per hour minimum!



1997 E-Z PORTABLE METAL BALER
In good shape, ready to start baling!



1998 CATERPILLAR IT28G LOADER
Includes grapple bucket and solid tires!



2017 VOLVO EC160EL W/SCORPION ENGINE PULLER
Only 2,900 hours on the meter! Great condition.



KOEHRING MODEL 6630 MATERIAL HANDLER
Works well. 20kW generator.



2016 ERDWISCH DUAL SHAFT SHREDDER
78" x 53" cutting chamber. (2) 120 HP motors.



BONFIGLIOLI DRAKE 2000 M-16 SHREDDER
2011 with 960HP motor. Ready to ship!



2014 AMERICAN PULVERIZER JAW CRUSHER
Like new! 10 HP. Two spare plates.



32" EDDY CURRENT SORT SYSTEM
Includes 32" vibratory conveyor, control panel.



MAGNATECH 30 x 24 HAMMERMILL SHREDDER
Entire system can be demonstrated!



VECOPLAN VAZ 1100XL
Currently shredding paper and cardboard.



COLMAR 800 TON SHEAR BALER
Model SB66200-800R. Only 2,000 hours!

DADE
Auctions

ASSET MANAGEMENT FOR SALVAGE, RECYCLING & WASTE

844-222-2020

www.DADEAuctions.com

METALS

Steel imports down 21 percent through June

U.S. IMPORTS OF FINISHED STEEL MILL PRODUCTS

BY COUNTRY OF ORIGIN (Thousands of Net Tons)

Preliminary	JUL 2020	JUN 2020	2020 (annualized)	2019 (12 months)	% Change 2020 Annual vs. 2019
SOUTH KOREA	158	187	2,197	2,576	-14.7%
JAPAN	50	61	830	1,242	-33.2%
GERMANY	46	79	724	1,043	-30.6%
TURKEY	52	29	642	328	95.9%
BRAZIL	88	23	639	534	19.7%
TAIWAN	37	65	636	830	-23.4%
CHINA	60	39	399	544	-26.7%
NETHERLANDS	42	34	393	550	-28.5%
All Others	834	803	10,700	13,405	-20.2%
TOTAL	1,367	1,320	17,160	21,051	-18.5%

Based on preliminary Census Bureau data, the American Iron and Steel Institute (AISI) reported that the U.S. imported a total of 1,391,000 net tons (NT) of steel in June 2020, including 1,310,000 net tons (NT) of finished steel (down 23.0 percent and down 12.7 percent, respectively, vs. May final data). Through the first six months of 2020, total and finished steel imports are 12,387,000 and 8,632,000 NT, down 20.8 percent and 26.2 percent, respectively, vs. the same period in 2019.

Key finished steel products with a significant increase in imports in June compared to May are line pipe (up 30 percent) and sheets and strip hot dipped galvanized (up 23 percent).

In June the largest volumes of finished steel imports from offshore were from South Korea (187,000 NT, down 19 percent from May final), Germany (79,000 NT, up 22 percent), Taiwan (65,000 NT, down 22 percent), Japan (61,000 NT, down 41 percent) and China (39,000 NT, up 13 percent). For the first six months of 2020, the largest offshore suppliers were South Korea (1,124,000 NT, down 23 percent vs. the same period in 2019), Japan (434,000 NT, down 40 percent), Germany (377,000 NT, down 39 percent), Taiwan (333,000 NT, down 36 percent) and Turkey (323,000 NT, up 66 percent).

ArcelorMittal reports 23 percent decline in shipments

ArcelorMittal reported their second quarter 2020 results.

Report highlights include:

- Operating performance in 2Q 2020 reflects the negative impact of the COVID-19 pandemic primarily on the steel business, with reduced demand leading to a 23.7 percent sequential reduction in steel shipments.

- Operating loss of \$0.3bn in 2Q 2020 includes \$0.2bn exceptional items.

- Net loss of \$0.6bn in 2Q 2020 (1H 2020 net loss of \$1.7bn, with adjusted net loss of \$0.9bn excluding impairment and exceptional items).

While the speed of the demand recovery post the COVID-19 pandemic remain uncertain, ArcelorMittal's core markets are showing signs of recovery from exceptionally low levels.

Against the exceptional operating backdrop, the company has taken a comprehensive series of actions to reduce all costs to protect profitability and cash flows. While these actions will continue, the company is now developing its options for structural cost improvements to appropriately position the fixed cost base for the post COVID-19 operating environment, with more details to be announced with full year results.

The company continues to expect certain cash needs of the business to be approximately \$3.5bn in 2020 and remains focused on its FY 2020 \$1bn working capital efficiency target.

Achievement of its \$7bn net debt objective remains a priority, at which

point the company expects its capital allocation focus to shift from deleveraging towards cash returns to shareholders

The company's \$2bn asset portfolio optimization program continues to progress, and with suitable and viable buyers having expressed serious interest in certain assets, the company remains confident in completing the program by mid-2021.

The company's European climate action report detailed the Smart Carbon and an Innovative DRI-based technology routes to reduce the European business carbon emissions by a targeted 30 percent by 2030 before reaching net zero in 2050.

Commenting, Lakshmi N. Mittal, ArcelorMittal chairman and chief executive officer, said, "The first six months of the year, and particularly the second quarter, have been one of the most difficult periods in the history of the company, with demand for steel considerably disrupted by the COVID-19 pandemic. I would like to thank our employees across the globe, who have demonstrated great resilience and strength of character to first look out for one another and then maintain operations to meet customer demand in these most challenging of environments."

"In conclusion, it has been an unexpectedly challenging period for everyone. The remainder of the year will no doubt continue to be challenging but I believe we are well prepared to increase production and capture the improvement in demand when it comes."



ARE YOU LOOKING FOR A WAY TO INCREASE YOUR PROFITS FROM YOUR IRONY ALUMINUM SCRAP?

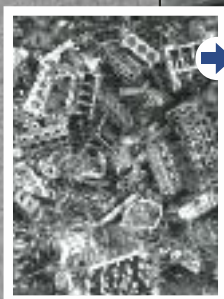
With our furnace processes, you can create three products:

Aluminum ingot to go straight to the mills
Clean HMS 1 or HMS 2 steel to go direct to the steel mills

Furnace hearth dross to the rotary furnaces for further processing

We offer sweat furnaces in many sizes to suit your needs.

No matter what size you purchase, the payoff average is 6 months with operation costs as low as 4 cents per pound of aluminum processed.



GIVE US A CALL SO WE CAN HELP YOU INCREASE YOUR BOTTOM LINE.



Recycling Services International, LLC

518-424-1168

[facebook.com/RecyclingFurnaces](https://www.facebook.com/RecyclingFurnaces)



Commodity		Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
#1 Bushelings	per gross ton	\$260.00	255.00	255.00	262.00	274.00
#1 Bundles	per gross ton	252.00	238.00	236.00	254.00	259.00
Plate and Structural	per gross ton	252.00	226.00	229.00	246.00	270.00
#1 & 2 Mixed Steel	per gross ton	175.00	219.00	220.00	223.00	251.00
Shredder Bundles (tin)	per gross ton	120.00	124.00	142.00	135.00	126.00
Crushed Auto Bodies	per gross ton	120.00	124.00	142.00	135.00	126.00
Steel Turnings	per gross ton	81.00	87.00	86.00	130.00	150.00
#1 Copper	per pound	2.73	2.40	2.45	2.70	2.74
#2 Copper	per pound	2.60	2.29	2.31	2.54	2.58
Aluminum Cans	per pound	.45	.48	.48	.50	.49
Auto Radiators	per pound	1.31	1.21	1.45	1.42	1.47
Aluminum Core Radiators	per pound	.48	.49	.40	.48	.54
Heater Cores	per pound	1.02	1.01	1.05	1.01	1.07
Stainless Steel	per pound	.47	.46	.49	.48	.47

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.

IRON PACK BALER

Bale a car in
ONE minute!



Remote Control • Automatic Cycle

Call for more
details and
additional
pictures.

IRON Ax

Iron Ax is an OEM that produces high quality mobile shears, balers, Enviro Racks, material handlers, booms, lowboy trailers, hydraulic cylinders, fluid couplings & grapples. We also carry Walker Magnets, Square D Controllers, Ohio Magnetics Controllers & Baldor Generators.

IRON AX SHEAR PACKAGES



All shears feature 360°
continuous rotation.

Iron Ax is the **ONLY** shear
manufacturer in the entire industry
that offers a complete package
consisting of a shear and an
excavator.

THE 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!

ALL ENVIRO-RACKS ARE
MADE IN AMERICA
WITH AMERICAN STEEL
FOR AMERICAN-SIZED CARS.



 **RECYCLING**
EQUIPMENT SALES, INC

Toll-free 877-247-6629
Fax 478-252-9030
www.ironax.com | ironax@ironax.com


View the Iron Ax YouTube Channel
to see the Iron Pack Baler
In Action Today!

AUTOMOTIVE

Average age of cars in the U.S. approaches 12 years

New research from IHS Markit shows that the average age of light vehicles in operation (VIO) in the U.S. has risen to 11.9 years this year, about one month older than in 2019. Though slight, the increase can generate new business opportunities for companies operating in the aftermarket and vehicle servicing sector in the U.S.

Several factors have contributed to push U.S. average vehicle age higher, according to the analysis. While vehicle scrappage rates have increased and would be expected to cause average age to drop, the growth in new vehicle sales has plateaued. Having fewer new vehicles added to the U.S. vehicle population has offset the potential drop in average age.

Underlying weakness in several segments of the market, combined with increased vehicle prices, provided

upwards pressure on average age of vehicles, as consumers weigh their cyclical goods expenditure, opt for longer-term financing options or hold onto their vehicles for a longer period of time.

“At the start of 2020, all signs were pointing to moderate growth of the average age of vehicles through the first half of the decade, and there was certainly growing pessimism about how long the strong economic fundamentals could last,” said Todd Campau, associate director of Aftermarket Solutions at IHS Markit. “However, the COVID-19 pandemic has created the perfect storm to accelerate U.S. light vehicle average age in coming years. This should be a positive side effect for the aftermarket, as the majority of repairs for older vehicles come through the aftermarket channel.”

New vehicle sales provide the pipeline for young vehicles coming into the marketplace. Prior to the pandemic, sales in the U.S. were already trending downward, representing just 6.1 percent of vehicles in operation in 2019, compared to 6.7 percent in 2016, the last record-setting sales year. Given the latest IHS Markit forecasts for the further slowdown in light of COVID-19, US new vehicle sales in 2020 are expected to account for 5 percent or less of all vehicles on the road in 2020. Declining new vehicle share in the overall population means fewer younger vehicles to temper average age growth.

Scrappage is the measure of vehicles exiting the active population. In 2019, scrappage rate as a percent of vehicles on the road was 5.1 percent, while in record sales year 2016, was just 4.6 percent. An interesting comparison year for 2020 would be 2009 when new vehicles sold represented 4.2 percent of VIO and scrappage stood at 5.2 percent, resulting in a rapid increase in average age, increasing by 4 months throughout that year.

“IHS Markit anticipates significant upward pressure on average age in 2020 and subsequent years as consumers work toward a new normal both economically and in how they use their personal vehicles in a post-COVID-19 era,” said Campau. “While work from home policies may continue for some time, there also has been increased reluctance in the use of public transit and ride sharing, and many consumers are opting for road trips instead of air travel for summer vacations. As a result, vehicle miles traveled (VMT) may not be impacted greatly in the coming years, given the increased personal use to offset everyday commuting.”

In light of COVID-19, dynamics of the changing vehicle fleet are anticipated to result in an increase in average age over the coming years, perhaps of four to six months, according to the

analysis. In turn, more vehicles will be pushed into the aftermarket sector’s “sweet spot” – thereby creating good business opportunities. However, in the near term, with VMT dropping in recent months to levels not seen in years, given the various stay at home orders across the country, some aftermarket businesses have been substantially impacted. This has increased pressure on product supply streams and revenue which rely on this critical utilization metric.

The U.S. vehicle population this year exceeded 280 million vehicles, according to IHS Markit, up just 1 percent from 2019. Overall, a growing fleet with increasing vehicle age presents a larger addressable market and opportunity for the aftermarket sector. However, opportunity size and its emergence largely depends on the distribution of the population of vehicles across different age categories.

Based on the analysis, the volume of vehicles 6 to 11 years old is expected to expand, which presents major opportunities for the sector due to dealer service plans and warranties expiring, netting new business opportunities for independent service and repair shops. Volumes of vehicles 12 to 15 years old, which have been an increasing source of revenue for the aftermarket, are expected to contract as aftermath of the lower volumes during the 2008-09 recession, which are still working their way through the vehicle population.

The impact of COVID-19 on vehicle average age is not expected to be uniform across the country, as vehicle age in some states will rise more rapidly while other states will stay closer to pre-pandemic norms. For aftermarket companies to capitalize most effectively on the opportunities created by the pandemic it will be beneficial to understand the nuances from one region to the next and be nimble enough to react accordingly at the local level.

SALVAGING Millions

by Ron Sturgeon
Autosalvageconsultant.com

Tools for success: Learn to talk up as well as down

The first article in this series listed more than 25 tactics to increase your business success, all of them based on my experience. I started with nothing and didn’t attend college, so I know you can achieve maximum success, regardless of your education.

Not everyone is the same in your world. If, as a boss, you can’t talk to employees with a proper tone, they won’t like you and won’t produce as well. As entrepreneurs and managers, we need to get along well with many kinds of people to achieve our goals: vendors, service providers, professionals, employees and perhaps, most importantly, your bosses.

I would argue that everyone on your team is like a boss. I love Ken Blanchard’s book, *Servant Leadership*. Whether you are an owner or a manager, you need to be able to set different expectations and talk to people at different levels of the enterprise in ways that make them want to work for you.

In the real world, the level of performance and the amount of accountability you should expect differs. We all wish everyone did exactly what they were supposed to and were super accountable. But you’ve likely got what I call worker ants on your team. We all need solid

worker ants, but they likely aren’t as well educated or as thoughtful about how they handle you, money and other relationships as executive leaders would be.

If you hold worker ants to the same standard as you hold your sales manager, they will leave. I know it sounds bad, but you have to tolerate some mediocrity and recognize that some people can contribute but only at a certain level. As they improve their skills, give them greater opportunities.

I always say that many business owners’ single biggest failure is that they don’t have a boss. They are autocratic and think they have all the answers. You don’t know what you don’t know. If they had a boss to question their logic or actions, their performance would be improved.

Everyone thought I would do poorly at Ford; they said I would be the first one fired. But they didn’t realize how well I could clean up and how well I knew how to talk to the board of directors and to a parts puller who needed a draw to pay his electric bill. Learn to treat people in a manner that makes them relaxed and appreciated, whether they are above or below you in the hierarchy and you will be even more successful.

LKQ reports drop in revenue

LKQ Corporation reported second quarter 2020 results consistent with the company’s previously announced second quarter business update on June 15, 2020.

Second Quarter 2020 Financial Results

Revenue for the second quarter of 2020 was \$2.6 billion, a decrease of 19.1 percent as compared to \$3.2 billion in the second quarter of 2019. For the second quarter of 2020, parts and services organic revenue decreased 16.8 percent year-over-year, while the net impact of acquisition and divestitures revenue was (0.5 percent) and foreign exchange rates was (1.5 percent), for a total parts and services revenue decline of 18.9 percent.

Net income for the second quarter of 2020 was \$119 million as compared

to \$150 million for the same period in 2019, a decrease of 21.2 percent year-over-year.

On an adjusted basis, net income was \$161 million compared to \$204 million in the same period of 2019. Adjusted diluted earnings per share for the second quarter was \$0.53 as compared to \$0.65 for the same period of 2019, an 18 percent decrease.

Cash flow from operations totaled \$718 million during the second quarter of 2020, up 56 percent from a year ago. Free cash flow totaled \$686 million, up 66 percent year-over-year. The company made \$552 million of net repayments on borrowings during the quarter, for a total year-to-date reduction of \$782 million. As of June 30, 2020, LKQ’s balance sheet reflected net debt of \$2.8 billion.

Remember, only you can make BUSINESS GREAT!

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

INTERNATIONAL

Organizations team up to remove unsafe recalled parts from circulation

The cost of repairing vehicles has increased sharply in recent years. This has impacted the do-it-yourself (DIY) repairer looking to fix their own car, garages trying to perform quality and cost effective repairs and insurers, where repair costs continue to increase, resulting in higher premiums to the consumer.

Reclaimed Original Equipment (ROE) parts offer a quality, cost effective and sustainable solution to this growing problem. But with the increased use of ROE vehicle parts, comes the increased risk of a dangerous and potentially fatal recalled part, due to faulty manufacture, being fitted to cars.

A bit like a recall in the food industry or any piece of safety equipment such as child safety seats, car parts demand by law, that a recall system is in place. But with high profile failings such as Takata Airbags, the recall system appears to be flawed and does not always protect drivers. The public needs to understand how to safeguard themselves.

Chris Daglis, Australian and International leader in the automotive parts industry and leading independent advisor to some major Australian and International insurers on alternative parts' strategies, said buyers of any product need to be aware of this increased risk and know how to protect themselves. He explains that the single most important question every driver should be asking right now of their mechanic, insurer or seller of parts is: "Do you know if this car part is safe and not the subject of a recall, and can this part be traced to my vehicle should it be recalled in the future?"

The Vehicle Recyclers Association UK (VRA) has worked closely with All Auto Recalls to develop a mechanism through which automotive recyclers in the UK can identify and remove recalled components from inventory. The collaboration has enabled the development of an efficient tool that is now available to all VRA members.

With the introduction of the UK certification program being launched in the middle of 2020, the VRA has foreshadowed a need for this service and through All Auto Recalls can now deliver it.

Chas Ambrose, secretary of the Vehicle Recyclers Association UK (VRA) stated, "VRA is delighted to be working closely with Chris and the team at All Auto Recalls to make available to UK vehicle recyclers a user-friendly facility to identify any parts in their stocks which are still subject to outstanding recalls. This will make the challenge of dealing with rising numbers of recalls a much more manageable task. Furthermore, not only will this ensure that vehicles dismantled in

the future are screened for outstanding recalls in real time but will allow recyclers to retrospectively screen their existing parts stock for current and, significantly, future recalls.

Effective recall management really is integral to the ongoing professional development of the UK reclaimed parts sector and will make a valuable contribution to ensuring reclaimed parts are safe and operate correctly, but also demonstrate the commitment of UK recyclers to building consumer confidence in reclaimed parts and their suppliers."

All Auto Recalls has been developing the capability since early 2018 and is now servicing multiple stakeholders. "Our purpose is to develop and provide traceability solutions to the automotive industry that reduce risk, increase confidence and ensure customer safety" said Chris Daglis, managing director of All Auto Recalls. "It's not something many of us would give a second thought to – you have been in a collision, or your car is due routine repairs and maintenance and we pass our vehicle over, into the hands of our local collision repairer, garage or insurer. Once our car is returned, repaired and ready to drive, how many of us would question where the parts had been sourced and if they were safe? How would we know if one such part, was in fact a dangerous part on the recall register? And how would we know if it were to be recalled in the future; could the part be traced to us and our vehicle?" said Daglis.

Reclaimed original equipment parts for collision repair are used in high volume across the globe making up approximately five percent of all parts used. However, with the unprecedented demand following the outbreak of the Coronavirus, being driven by cost pressures on insurance claims and the environmental benefits that can be derived from using reclaimed parts, experts are already seeing the effects and are expecting to see demand rise dramatically, beyond 20 percent.

- Australia currently uses circa 10 percent of such parts, the U.S. 12 percent, New Zealand a whopping 40 percent and the UK around 2 percent.

- Manufacturers recalled 29.3 million vehicles in 2018, according to National Highway Traffic Safety Administration data (NHTSA).

- Between 2014 and 2016, the total number of vehicles affected by recalls spiked – reaching 50.5 million in 2016.

- There are millions of insurance claims each year in the UK, with parts making up circa 50 percent of a vehicles' repair cost.

- Over a million vehicles are repaired due to road accidents every year with more going to mechanics for routine repairs.

The impact of Coronavirus on UK car drivers is somewhat alarming; we must know if a part that has been added to our vehicle is from a licenced automotive recycler and more importantly, that they have a lawful and robust recall process in place. The recall process must go beyond the time it is added to our car; it needs to go for the life of the car and the time we own it. If this information does not reach either the owner or the mechanic that fitted the part, there is zero traceability. And this applies no matter where it was sourced and by whom it was fitted.

"It is critical for mechanics, collision repairers, insurers and any on-seller of parts, to have a recall checking capability so that they can alert their customer to a safety problem on their vehicle. Sometimes these recalls are critical; they are death traps – in the Takata airbag scenario, we are talking about some airbags being in vehicles that are now 24 years old, yet they were only recalled 3 months ago. The All Auto Recalls UK system offers the Auto Alert function – this will alert the auto recycler if any of the vehicles they have entered into the system, have a recall against them at any time in the future. Remember, a vehicle may be clear today, but recalled at some time in the future," explains Daglis.

Recycling plant built in Dubai

Eggersmann Anlagenbau was commissioned with the engineering planning and construction of a recycling plant for industrial, commercial and household waste in Dubai.

In addition to engineering design and planning, the scope of the order also included the procurement, manufacture and delivery of the entire plant technology and components as well as assembly and commissioning.

The waste recycling plant in Dubai was designed for a throughput of around 700 tons of commercial waste and 500 tons of household waste per day. The day to day industrial and commercial waste from the offshore industrial park, Jafza Jebel Ali Free Zone, is processed here in three stages.

In the material receiving area of the two line plant, the material composition is assessed to determine whether the material must be pre-sorted as a first step or whether it can be forwarded directly for processing in the plant.

The recycled fractions of PET, HDPE, paper, cardboard, ferrous and nonferrous are then pressed into bales and returned to the material cycle. The residue fine waste fractions are pressed into containers for subsequent disposal to landfill. The remaining high calorific value fraction is supplied to cement works for use as an alternative fuel.



SHEAR STRENGTH SHEAR PROFIT SHEAR GENIUS

RES Corp SHEARS

Proudly Made in the USA

New • Used • Parts • Service



CUSTOM
Power
Options
to fit YOUR
needs!



RecyclingEquipmentSolutionsCorp.

All the Shear Equipment Services You Will Ever Need

330-920-1500

www.therescorp.com

Contamination

■Continued from Page 1

“So in addition to the revenue lost by failing to capture all of the UBCs that move through a recycling facility, not having technology to keep bales as pure as possible also erodes the value of the material,” Wirth said.

The complexity of products and packaging in the material stream also affects contamination. As Wirth explained, household and consumer products are becoming more visually diverse and are composed of a variety of materials. This product diversity leads to consumer confusion and the placement of many non-recoverable objects in the single stream, increasing contamination.

Education & Automation to the Rescue

Goldstein says that education is key to helping offset the contamination issues facing the recycling industry. For example, Ventura County residents are being told to keep ivy, palm, yucca, succulents and treated lumber out of yard waste recycling carts. Also, as food waste recycling programs become more common, residents must keep supposedly “biodegradable” food service items out of food waste recycling containers unless signs on the food waste containers clearly state such types of degradable items are acceptable.

In addition to the lack of education, the limitations of manual sortation processes are one contamination culprit. High contamination rates increase the cost to sort single-stream recycling. And contamination in recyclables entering the commodity markets decreases product quality.

“Contamination is a significant challenge, especially in light of China’s enactment of its National Sword policy, which greatly increased purity standards for material imported from countries around the world,” Wirth said. China began rejecting material with more than a very marginal amount of contamination. What that means is that if facilities can’t adequately remove contamination to sell recyclables to end markets, not only is the material likely to end up in landfills, but these facilities aren’t getting any value from it. It’s these unfavorable economics of the recycling process that AMP is working to change with AI and robotics technology that automates work traditionally done by human sorters in these facilities.”

Kirstein believes robotics should play a large role in solving some of the contamination problems facing the recycling industry.

“It’s hard to properly sort out contaminants for anybody,” Kirstein said. “With machinery that can source separate commodities more efficiently without having to retrofit for the A.I., we will continue to advance.”

Wirth agrees that robots are very useful in addressing these challenges. First, the AI that powers the robots recognizes all of the objects in the single stream. The more objects the robots see, the more they learn how to identify recoverable objects and contaminants.

As Wirth explained, the robots effectively behave like a sensor to detect and report contamination levels to MRF

operators. Many robots are deployed at quality control stations where the robot can remove contamination and also quantify the quality of the material destined for the commodity market. Using AI, robots are able to learn the features of materials in the recycling stream. They are able to differentiate material features, like the color, shape, size, or translucence of an object, and even identify logos of specific brands. All of these abilities help the robots narrow down the source of contamination and what to do with it.

“Robots can consistently pick at least twice as rapidly as humans, and systems are designed to run 24/7,” Wirth said.

As a result, recycling facilities are investing in automation to address contamination and improve their operations overall. Wirth has seen an acceleration in the adoption of this technology during the COVID-19 pandemic as one way to deal with skyrocketing residential recycling volumes driven by more people staying home, ordering more online and eating more takeout.

“AI and robotics hold great promise for helping facilities quickly pivot to adapt to changing material streams, and extracting more value from the materials that pass through them by meeting increasing purity standards,” Wirth said.

Future Modifications

Changes in product design are key to making consumer goods more compatible with recycling infrastructure. As an example, Evian designed a new bottle without a label, with the brand name and details carved into the plastic.

“While bottle labels are technically recyclable, not all facilities have the infrastructure to handle it, and for others, it’s not worth the effort,” Wirth said. “AI and robotics technology helps remove impurities from recyclables and decrease contamination, improving the ability to create new plastics, and other materials, as part of a circular economy.”

As we continue to incentivize greater use of recyclable materials, the industry also must align investment in recycling infrastructure to meet demand, by upgrading existing facilities and creating new ones. Investment supports recycling infrastructure and spurs growth and technological innovation around end markets for post-consumer materials. It’s about the industry working together to accelerate circular supply chains and keep materials in use.

Wirth stressed that it’s important we see more collaboration and communication among players in the recycling ecosystem. At AMP, they’re working with GFL Environmental of Colorado and Keurig Dr. Pepper to recycle #5 coffee pods, including Keurig’s recyclable K-Cup pods. GFL now accepts emptied coffee pods via curbside recycling and processes them in its single-stream recycling line.

“It’s not just about designing packaging that’s recyclable, but that will actually be recycled – and that’s where the need for collaboration, especially with recycling infrastructure, comes into play,” Wirth said. “Together we can develop more efficient and effective systems to turn product and packaging waste back into the inputs to future manufacturing.”

BUSINESS BRIEFS

AISI chooses new chairman and interim CEO

■ Kevin Dempsey will take on the role as president and chief executive, succeeding Thomas J. Gibson, who announced his retirement in March. Dempsey has served as AISI’s senior vice president for public policy and general counsel since 2009.

Also, the organization elected ArcelorMittal USA chief executive John Brett as chairman. Brett had been serving as the interim chairman following the retirement of Roger K. Newport this spring.

Before joining AISI, Dempsey was a partner at the international law firm Dewey & LeBoeuf and its predecessor, Dewey Ballantine LLP. While in private practice, he litigated numerous international trade cases on behalf of U.S. steel producers and other U.S. industries before the U.S. International Trade Commission, the U.S. Department of Commerce, and the U.S. courts.

Exodus Machines hires new VP of service

■ Exodus Machines expanded its team with the appointment of Brian Hawn as the new vice president of service.

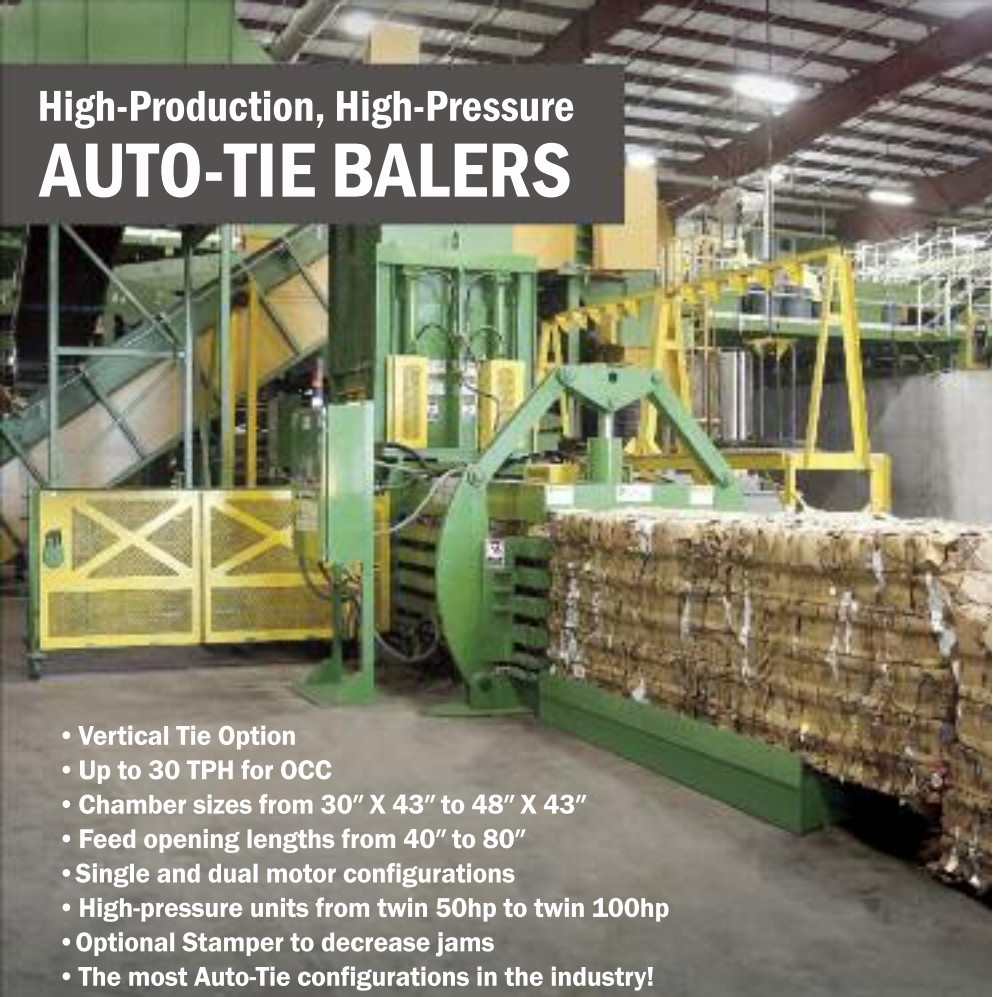
Hawn was most recently with Stanley Black and Decker, where he oversaw the Stanley infrastructure field service team. He was responsible for coordinating all training for sales, service, dealers, and end-users for the entire Stanley infrastructure division including LaBounty, national and global accounts.

Umicore sees strong recycling performance

■ Against the backdrop of severe disruptions to society and business caused by the COVID-19 pandemic, Umicore demonstrated its resilience to extreme shocks and the complementarities of its business activities. In the first half of 2020 Umicore achieved financial results broadly in line with those of the same period in 2019, with a very strong performance in recycling offsetting the impact of the downturn in the automotive industry on the results of Catalysis and Energy & Surface Technologies.

Umicore revenues for the first 6 months amounted to € 1.6 billion (-4 percent year on year) and the adjusted EBIT[1] amounted to € 243 million, up 1 percent compared to the first half of 2019. Adjusted EBITDA increased 5 percent to € 376 million.

Considering the unforeseen disruptions caused by COVID-19 in several of its key end-markets, Umicore is reassessing its production footprint as well as the carrying value of certain assets. As part of this assessment, Umicore decided to consolidate its North American automotive catalyst production activities in Burlington, Canada and discontinue its automotive catalyst production in Tulsa, U.S. Umicore has also impaired certain tangible and intangible assets. As Umicore continues to reassess its footprint and monitor the value of certain assets, additional cash and non-cash adjustments may be required in the second half of the year of a similar or somewhat higher size than those booked in the first half.



**High-Production, High-Pressure
AUTO-TIE BALERS**

- Vertical Tie Option
- Up to 30 TPH for OCC
- Chamber sizes from 30" X 43" to 48" X 43"
- Feed opening lengths from 40" to 80"
- Single and dual motor configurations
- High-pressure units from twin 50hp to twin 100hp
- Optional Stamper to decrease jams
- The most Auto-Tie configurations in the industry!

IB INTERNATIONAL BALER
1-800-231-9286 | sales@intl-baler.com | WWW.INTL-BALER.COM

To Place Your Ad

Call
877-777-0043
Fax
419-931-0740
Visit
AmericanRecycler.com

AR Classified ADVERTISEMENTS

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

**ASK ABOUT
ADDING COLOR!**

Rates

Text Classifieds
\$70 for up to 50 words.
Add \$1 each additional word.

Display Classifieds
\$75 per column inch depth,
2.5" width.

Featured Classifieds

OUR SERVICES

Mergers & Acquisitions Consulting
Business Valuation & Brokerage
Specialty Waste Transportation
Management Consulting and Advisory
Asset Preservation & Reorganization
Waste To Energy Consulting
New Business Opportunities



609.854.3520 tel
609.854.3596 fax
rs@sternerconsulting.com
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

Material Handlers

Fuchs — Liebherr
Sennebogen — CAT

MATERIAL HANDLERS

20 Machines
with Cab Risers,
Gen-sets & Rotating
Grapples
IN STOCK!



New and Used
Grapples
New Magnets
and Gen-sets
New 24V Magnets
**EQUIPMENT
INTERNATIONAL
303-699-7766**

SELLING YOUR BUSINESS? Finding the right buyer, at the right time, can be like finding the needle in a haystack! It may take time to sell, so place your classified ad here at the low cost of only \$70 per issue and have it seen online, too, for the same price! Call us at 877-777-0043 or e-mail sales@americanrecycler.com today.

Miscellaneous

DYNALOG
HIGH PERFORMANCE GRAPPER PARTS
Screens, Hammers, & Other Parts for
SWING Hammer Applications
Grinder Repair & Service Also Available!
(Tub & Horizontal, Jones, Haybuster,
WHO, & Other Brands)
Contact us
for a Quote!
800.743.3491 or 785.284.3454
Email: sales@dynalog.com Web: dynalog.com

WE BUY AND SELL USED RECYCLING EQUIPMENT

HOVDE RECYCLING EQUIPMENT
800-617-5219 TEXT 320-760-5688
scrapequip.com steven@scrapequip.com

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

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

Software

SCRAPRIGHT SOFTWARE IS THE #1 TOP RATED, fully featured, best supported, most innovative, intuitive and easiest-to-use recycling software in the scrap industry. We want every scrapper to be in compliance affordably! We offer plans starting at \$49/month! Free 7 day trial available. Call 877-897-6422 or visit www.scrapright.com

Containers

BomacCarts
A Cut Above the Rest
www.bomaccarts.com • sales@bomaccarts.com
1-800-909-1147

Glass Processing

American Pulverizer Jaw Crusher

2014 model with only about 10 hrs on it, like new!
Great for glass crushing
Includes 2 spare toggle plates.
(844) 222-2020

Material Handlers

KOEHRING MODEL 6630 MATERIAL HANDLER
Works well. 20kW generator.

CASE 721 WHEEL LOADER
Includes a bucket and two sets of forks!

2005 JOHN DEERE 330LC.
Equipped with a 2011 Genesis 440R shear.

419-776-5059

OCTOBER

FOCUS:
Electronics/Glass

Close Date: 9-17

NOVEMBER

FOCUS:
Automotive

Close Date: 10-19



**Uncover Quality
Carts with
BomacCarts**



www.bomaccarts.com • sales@bomaccarts.com • 800.909.1147

Embracing alternative energy waste vehicles

by MAURA KELLER

mkeller@americanrecycler.com

Historically, fleets of all sizes and across all industries have used petroleum diesel as their key fuel source. In recent years, more and more recycling companies and others have turned to blended biodiesel concoctions – such as B20 (20 percent biodiesel and 80 percent petroleum diesel) – as well as electric, hybrid and other alternative energies – to take advantage of the environmental and sustainability benefits, reduce lifecycle greenhouse gas emissions and help organizations attain their sustainable energy goals.

Adam Friedberg, principal at Buro Happold, leads the company’s Cities Team in North America. The firm is made up of nearly two dozen economists, planners, engineers, resiliency and sustainability experts, social scientists and real estate specialists. According to Friedberg, in the U.S., vocational fleet used for refuse collection, recycling, street cleaning, and snow removal are primarily fueled by diesel and gasoline. Compressed natural gas (CNG) and liquified natural gas (LNG) are the preferred alternative fuels for most waste handling vehicles. Propane (or LPG) is used in street sweepers and snow plows but is predominantly used as a secondary fuel for gasoline and CNG-powered vehicles.

“An increasing number of cities are committing to cleaner fleets by using alternative energy sources,” Friedberg said. “Cities like Long Beach and San Francisco are partnering with their private hauling companies to transition from diesel to 100 percent CNG or LNG-powered vehicles. While others like Washington, DC and Louisville are using biodiesel blends and renewable natural gas (RNG) respectively, to power refuse and recycling trucks. And cities like New York City have planned to cut 80 percent of its vehicle emissions by 2035 – for NYC this includes the Department of Sanitation.

“Cities are also committing to electrifying their refuse fleet, which



Close up of a hydrogen fueling dispenser for vehicles.

PHOTO BY MONA MAKELA | DREAMSTIME

will reduce emissions as well as noise nuisance and allow for safer, more audible communication between sanitation workers,” Friedberg said. For example, earlier this year the Los Angeles Bureau of Sanitation (LASAN) committed to achieving a zero emission fleet by 2035. Similarly, in the last three to four years, manufacturers like BYD and Wrightspeed have successfully piloted electric refuse trucks, and other giants like Daimler and Mack will introduce new models this year.

“Cities such as Palo Alto and Seattle have already added battery electric vehicles to their waste management fleet, and many other municipalities like New York and Los Angeles are following in their footsteps,” Friedberg said. “And we are seeing this trend globally, and not just with electrification. For years, Sweden has been digesting organic solid waste and wastewater and converting it to

methane biogas and CNG. For example, a waste-to-energy power plant in Linköping can produce enough biogas methane to run the region’s garbage collection trucks and city buses.”

Benefits Aplenty

As Friedberg explained, medium- and heavy-duty diesel vehicles emit a mixture of air pollutants like oxides of nitrogen (NOx), ultrafine particulate matter, black carbon, and various carcinogens that have adverse health impacts. These include exacerbated cases of bronchitis and asthma and increased hospitalizations and premature death due to cardiovascular and respiratory ailments.

“Transitioning to alternative waste collection vehicles has the potential to significantly reduce these health risks, particularly in dense urban areas,” Friedberg said. Furthermore, CNG, LNG, and electric trucks are cleaner and quieter, making them better for residents and sanitation workers.

Adam Comora, president and chief executive officer of TruStar Energy, a leading developer and provider of renewable natural gas (RNG) transportation fuel and fueling infrastructure, stressed that the benefits of natural gas vehicles are reliability, lower fuel cost, stable pricing, less maintenance cost, quieter trucks and reduced emissions. Taking that a step further, natural gas trucks that run on RNG is the lowest carbon fuel solution commercially available today. With the right application, RNG can save money and dramatically reduce carbon emissions.

And from an energy security standpoint, switching to CNG, LNG or electric vehicles reduces dependence on imported oil. For example, renewable natural gas is produced locally, is cleaner than diesel and makes use of waste products.

See VEHICLES, Page B6

**Reliability,
Productivity
and Innovation...**

Maren manufactures an extensive series of “best in class” balers for **Distribution & Warehousing** to **Post Consumer Recycling**, and everything in between...



MAREN
Balers & Shredders
Building customer loyalty since 1962.

Find your next Maren Baler at: 800-875-1038
marenengineering.com • sales@marenengineering.com

From **Distribution & Warehousing** to **Post Consumer Recycling!**

Kroger offers Simple Truth recycling program

The Kroger Co. has launched its Simple Truth® Recycling Program, offering customers a free and simple way to recycle the flexible packaging of more than 300 products from Simple Truth, America's largest natural and organic brand, with annual sales exceeding \$2.5 billion in 2019.

Developed in partnership with TerraCycle, Kroger's new platform enables customers to recycle a wide range of flexible packaging not currently accepted in curbside recycling programs, including produce bags, bread bags and plastic overwrap from household items like tissues and bottled water. The Simple Truth Recycling Program marks another significant milestone for Kroger's Zero Hunger | Zero Waste social impact plan and establishes Kroger as the first Fortune 25 retailer to offer a free recycling program for its own private-label brand.

"A key part of achieving our ambitious Zero Hunger|Zero Waste vision is offering our customers innovative solutions to recycle and reuse product packaging," said Keith Dailey, group vice president of corporate affairs and chief sustainability officer. "We're thrilled to partner with TerraCycle to launch our new Simple Truth Recycling Program, supporting our sustainable packaging goals and enabling Kroger customers to recycle their favorite Simple Truth and Simple Truth Organic products without ever leaving home."

How the Simple Truth Recycling Program works:

1. Sign up online.
2. Collect Simple Truth and Simple Truth Organic flexible plastic packaging.
3. Ship the packaging to TerraCycle using a free, prepaid shipping label.
4. Earn points for every pound of eligible packaging sent.
5. Redeem points as donations to charitable organizations.

The Simple Truth Recycling Program is currently open to individuals, schools, offices and community organizations across the U.S. The Simple Truth portfolio includes more than 2,000 natural and organic products, with hundreds of new items launching each year.

The Kroger Co.'s long term commitment to sustainable packaging

"Sustainable packaging is a core tenet of our Zero Hunger|Zero Waste social impact plan," continued Dailey. "While packaging is important for preserving product quality, freshness and integrity, we also recognize the negative impact packaging – especially plastic varieties – can have on the environment. As we continue to drive progress toward our current 2020 sustainability commitments, we're laser-focused on reducing unnecessary packaging from our enterprise, reusing where we can and striving for more sustainable packaging across our private-label portfolio."

EPA resolves past hazardous waste incinerator violations against Norlite in Cohoes, NY

The U.S. Environmental Protection Agency (EPA) has settled a case against Norlite, LLC to resolve past violations of the Clean Air Act related to the testing of their hazardous waste combustor (HWC) emissions and setting of operating parameter limits at its Cohoes, New York facility. The facility was found to be violating EPA's HWC Maximum Achievable Control Technology (MACT) requirements. EPA has been monitoring the facility's actions as it came into compliance with these requirements and the settlement announced today requires the payment of \$150,000 for the past violations.

This action is separate from the investigation of recent concerns voiced regarding the incineration of firefighting foam at Norlite.

"EPA is working to enforce the Clean Air Act to protect public health," said EPA regional administrator Pete Lopez. "We are working to ensure that the facility has done what it needs to do to comply with the important air quality regulatory requirements. EPA's work at this facility continues as we address the unrelated issue involving incineration of Aqueous Film Forming Foam (firefighting foam) at the facility. Here, EPA is partnering with New York State Department of Conservation to determine if EPA can lend technical expertise to assess AFFF incineration activities at the site."

The violations resolved by the announced settlement were identified during an EPA inspection in 2015 and a review of data going back to 2012. The inspection and data review revealed exceedances of operating limits, called Operating Parameter Limits or OPLs.

In March 2015, EPA conducted a compliance evaluation inspection at Norlite's facility to assess the company's compliance with the HWC

MACT. As part of the inspection, EPA requested production and operational data from Norlite for its kilns. EPA's review of Norlite's data revealed that the company had exceeded multiple OPLs on numerous occasions over the course of three years (2012- 2014).

Specifically, Norlite exceeded the OPL for maximum gas exit temperature, which is necessary to control emissions of dioxins and furans, and it exceeded the OPL for minimum pressure drop in the scrubber, which impacts the ability to control emissions of hydrogen chloride, chlorine gas and particulate matter.

Norlite subsequently submitted information to the EPA showing that it exceeded the applicable emissions limits for chromium, arsenic, and beryllium during a performance test the company conducted on December 7, 2017.

As background, EPA issued an Administrative Compliance Order on May 18, 2016, directing Norlite to, among other things, come into compliance with the then-applicable OPLs and conduct additional performance testing to update the applicable OPLs for one of its kilns. Norlite conducted a Comprehensive Performance Test on Kiln 1 of its Cohoes facility in December 2017. The Clean Air Act requires that these performance tests be conducted every five years. Norlite had been alternating the kilns for which they conducted the performance tests during each five-year cycle.

Norlite demonstrated compliance with the Clean Air Act requirements for Kiln 1 during the December 2017 performance test, which also re-established the operating parameter limits for the kiln. The EPA further pursued a penalty for the past violations, which is the subject of the settlement.



We're not
just blowing
smoke.

Advertising in American Recycler
WORKS

877-777-0043

www.AmericanRecycler.com

SIGN UP FOR THE 2021 BUYER'S GUIDE NOW! BASIC LISTINGS ARE FREE!

CALL NOW FOR OUR
2021 EDITORIAL TOPICS CALENDAR.

A R EQUIPMENT
SPOTLIGHT

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

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

UPCOMING TOPICS

OCT	Pulverizers
NOV	Auto Balers/ Loggers
DEC	Attachments
JAN	Conveyors

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.

Program collects and disposes of PFAS containing foam

The Michigan PFAS Action Response Team (MPART) announced that the state's \$1.4 million effort to collect and safely dispose of surplus PFAS-containing aqueous film forming foam (AFFF) held by fire departments and commercial airports across Michigan has surpassed 30,000 gallons.

Perfluorooctanoic acid, also known as C8, is a perfluorinated carboxylic acid produced and used worldwide as an industrial surfactant in chemical processes and as a material feedstock, and is a health concern.

"In less than a year, Michigan has succeeded in what is likely the nation's largest collection and disposal program for PFAS-containing AFFF," said MPART executive director Steve Sliver. "This product has been responsible for contaminating drinking water around hundreds of US Air Force bases and commercial airports across the country and we urge the EPA, Department of Defense and FAA to look at this program as a model for reducing the risk of PFAS contamination from federal facilities nationwide."

The AFFF was identified through a 2018 MPART initiative to survey and educate fire departments throughout Michigan on the appropriate use and clean up of PFAS-containing firefighting foam.

Led by State Fire Marshal Kevin Sehlmeier, the survey identified 326

fire departments with Class B AFFF in their inventories – nearly half of the 762 departments surveyed.

"As more and more fire departments became aware of our collection program, interest in disposing of this surplus AFFF increased," Sehlmeier said. "With the free collection program ending this summer, there is still time for fire departments and municipal airports to contact MPART and have their surplus AFFF collected."

The Department of Environment, Great Lakes, and Energy (EGLE) last year awarded US Ecology of Livonia a 7 month, \$1,441,671 contract to collect and safely dispose of Class B AFFF.

Under the contract, US Ecology will collect Class B AFFF liquid from local fire departments and transport it to its licensed hazardous waste facility in Idaho where it will be solidified and disposed of on site.

Known to scientists as perfluoroalkyl and polyfluoroalkyl substances, PFAS are a group of chemical contaminants used in thousands of applications globally including firefighting foam, food packaging and many other consumer products, and exposure to PFAS is correlated with several harmful and serious health effects. These compounds also are used by industries such as tanneries, metal platers and clothing manufacturers.

Republic Services partners with Nikola to develop and purchase 2,500 electric collection trucks

Republic Services, Inc. announced a partnership with Nikola Corp. to develop and purchase 2,500 electric waste and recycling collection trucks, representing the industry's first large scale commitment to fleet electrification. The zero emissions vehicles, which will have a range of 150 miles and recharge overnight, are expected to be integrated into Republic Services' fleet beginning in 2023. The deal is expandable to 5,000 vehicles over the life of the agreement.

"This partnership significantly accelerates Republic Services' progress in fleet innovation to drive profitable growth, reduce emissions, enhance customer loyalty and create long-term shareholder value," said Jon Vander Ark, president. "Our agreement with Nikola represents the industry's first large scale commitment to fleet electrification. We expect to realize significant operating cost savings and environmental benefits from these trucks, and we are confident that our customers, communities and employees will benefit from our bold commitment."

The collaboration with Nikola represents a transformational step forward in Republic Services' efforts to leverage technology and innovation to reduce emissions, increase operational efficiency and provide economical, environmentally sustainable solutions to its customers. Among the many anticipated benefits of fleet electrification are instant torque, no idling, regenerative braking, up to 90 percent lower emissions on a per-mile basis and quieter operation in neighborhoods, as well as significantly lower maintenance costs.

Last year, Republic Services set a long term sustainability goal to reduce greenhouse gas emissions by 35 percent and was the first U.S. recycling and solid waste services provider to have its emissions reduction target approved by the Science Based Targets initiative (SBTi). The company intends to continue investing in innovation to enhance the performance, economics and environmental impact of its fleet and drive value for its stakeholders.

My dog Lassie once spent an hour trying to explain to me that Timmy had fallen down a deep cylindrical hole full of water.

It's okay. I knew she meant well.

Casella Waste reports increased revenue

Casella Waste Systems, Inc. reported its financial results for the three and six month period ended June 30, 2020. The company also reintroduced guidance for the fiscal year ending December 31, 2020.

Highlights for the quarter and year-to-date ended June 30, 2020:

- Revenues were \$188.8 million for the quarter, up \$1.3 million, or up 0.7 percent, from the same period in 2019.

- Overall solid waste pricing for the quarter was up 4.4 percent, with collection pricing up 4.3 percent, and landfill pricing up 6.2 percent, from the same period in 2019.

- Net income was \$12.1 million for the quarter, up \$0.2 million, or up 1.7 percent, from the same period in 2019.

For the quarter, revenues were \$188.8 million, up \$1.3 million, or up 0.7 percent from the same period in 2019, with revenue growth mainly driven by: positive collection and disposal pricing; the roll-over impact from acquisitions; higher resource solutions volumes; higher recycling commodity prices and tipping fees; partially offset by lower solid waste volumes primarily due to the negative economic impacts of the COVID-19 pandemic.

Net income was \$12.1 million for the quarter, or \$0.25 per diluted common share for the quarter, up \$0.2 million, or up 1.7 percent, as compared to net income of \$11.9 million, or \$0.25 per diluted common share, for the same period in 2019. The quarter included a \$0.4 million income tax provision, \$0.4

million of expense from acquisition activities and \$0.6 million of legal and other expenses associated with the Southbridge Landfill closure. The same quarter last year included a \$(1.9) million income tax benefit, \$0.5 million of expense from acquisition activities and \$0.9 million of legal and other costs associated with the Southbridge Landfill closure.

Operating income was \$17.4 million for the quarter, up \$1.9 million, or up 12.2 percent from the same period in 2019. Adjusted EBITDA was \$44.0 million for the quarter, up \$3.6 million, or up 8.9 percent from the same period in 2019.

For the year-to-date period, revenues were \$371.7 million, up \$20.6 million, or up 5.9 percent from the same period in 2019, with revenue growth mainly driven by: positive collection and disposal pricing; the roll-over impact from acquisitions; higher resource solutions volumes; and higher recycling tipping fees; partially offset by lower solid waste volumes primarily due to the COVID-19 pandemic and lower recycling commodity prices.

Net income was \$13.1 million year-to-date, or \$0.27 per diluted common share year-to-date, up \$2.9 million, or up 28.1 percent, as compared to net income of \$10.2 million, or \$0.22 per diluted common share for the same period in 2019. Operating income was \$24.5 million year-to-date, up \$4.5 million, or up 22.4 percent from the same period in 2019.

NEW
DUST & ODOR CONTROLLER

THE TRIDENT

BUFFALO TURBINE

74 HP DIESEL ENGINE
NO GENERATOR REQUIRED
3X THE COVERAGE

(716) 592-2700 • BuffaloTurbine.com

EQUIPMENT SPOTLIGHT

Sorting Systems

by **MARY M. THORNTON**

maryt@americanrecycler.com

It more important than ever to divert as much waste from landfills as possible and it must be done efficiently. Equipment options for sorting items culled from the waste stream vary and the vendors noted in this article are happy to assist in choosing the best products for your operation.

A leader in the vibratory equipment sector since its inception in 1972, Action Equipment Company is dedicated to the design, manufacture and installation of vibratory equipment for the efficient processing of bulk materials.

A key product for sorting is the Dense-Out[®] vibratory air separator, a rugged vibratory air knife. The conveyor uses air to separate “heavies” from “lights” when processing items such as plastic and paper from glass. The unit can be configured with single or multiple air knives, depending on the level of separation required. An optional Dense-Out addition adds a Taper-Slot[®] rugged, finger screen at the unit in-feed, which sorts fines from the stream. This product is popular in settings such as construction and demolition (C&D) recycling, glass cleaning, aggregate cleaning, removing rocks from biomass/hog fuel and auto shredder residue clean up.

“From day one, Action has been innovative in bringing vibratory equipment to the next level. Our commitment is to never settle and bring better solutions to a technology that has been around for decades,” president Andrew LaVeine stated. The firm’s newest product is the Sub-Pan Free[™] Dense-Out/Taper-Slot screen, which eliminates the sub pan under the



Action Equipment Company, Inc.

screens. This product eliminates one additional, large surface area which could attract wet and sticky material. Instead, screened materials drop directly into a bunker or onto a take-away conveyor. For many customers that handle problematic materials, this option reduces maintenance and cleaning time.

Jarrod McKay, Hustler Conveyor sales associate, explained that, “Our OCC screens and systems provide a solution for an immediate and long-term need, amidst the worldwide COVID-19 pandemic. Waste recycling facilities are upgrading and adding to their systems to handle the significant increase in OCC output. Consumer use consistently pushes OCC consumption to record levels as quarantines, social distancing protocols, and stay-at-home orders are the new normal. Meanwhile, our online orders have increased dramatically. This rise in online deliveries is directly responsible for the current influx of OCC processed on the tipping floor today. Although online sales can be expected to decrease eventually, this

crisis has forced late majority and laggard consumers to utilize technologies and services which now maintain the overall increase of OCC output for the indefinite future.”

How do facilities adapt to this surge in consumer purchasing practices? “Facilities which need to process more tonnage are considering the addition of new processing locations, additional lines for existing systems, or the retrofit of new/upgraded higher throughput machines. With over 50 years serving the recycling industry, Hustler Conveyor continues to design, engineer, and manufacture full systems, incorporating our Heavy-Duty Double Deck OCC separating screens, which process up to 20 tons of material per hour. Our triple deck unit is incorporated into systems that are required to process tonnages up to 30 tons per hour. Each machine deck is composed of 26” abrasion resistant steel discs and each deck has dedicated drives for independent speed control to improve separation of varying materials. Interfacing chutes, supports, and platform structures are custom designed and fabricated to customer specifications,” McKay noted.

Redwave has designed and built systems to handle every main landfill diversion strategy; refuse derived fuel (RDF) production, recycling of high value materials from the household waste stream, and composting systems for organic waste management. “For RDF production, we have developed full mechanical and biological waste treatment facilities that transform household and commercial waste into fuel for powering waste-to-energy plants. This is achieved by increasing

the Btu value of this fuel source. Redwave has completed projects in operations around the globe that range from input capacities of 105,000 metric tons per year to 650,000 metric tons per year. With the leading Redwave sensor sorting machines based on camera, NIR and XRF technologies, recyclers can recover valuable resources during processing and remove materials that are detrimental to the waste-to-energy

See **SORTING SYSTEMS**, Page B7

MANUFACTURERS

Action Equipment Company, Inc.
Andrew LaVeine
503-537-1111
www.actionconveyors.com

Andritz AG
Franz Frühauf
49 7056 925 159
www.andritz.com

DeHart Recycling Equipment Inc
Sean Justin
314-292-8181
www.dehartbaler.com

Green Machine Sales LLC
Leslie Green
800-639-6306
www.greenmachine.com

hamos GmbH Recycling- und Separationstechnik
Selinda Sliz
49 885692610
www.hamos.com

Hustler Conveyor Company
Dave Guyton
636-441-8600
www.hustler-conveyor.com

MSS Optical Sorting Equipment
Felix Hottenstein
615-781-2669
www.msosptical.com

Redwave Solutions US LLC
Parker Pruett
470-699-1667
www.redwave.com

Sherbrooke OEM, Ltd.
Frédérique Gosselin
819-349-7562
www.sherbrooke-oem.com

Tomra Recycling
Carlos Machado Aienza
980-279-5650
www.tomra.com

Tuffman Equipment
Wally Kochan
815-271-6311
www.tuffmanequipment.com

ZenRobotics Oy
Juha Mieskonen
358 045 2596161
www.zenrobotics.com



Hustler Conveyor Company

SHAKE & SORT with AIR!

Separate different density materials with the
DENSE-OUT[®] Vibratory AIR Separator

www.actionconveyors.com

ACTION
VIBRATORY EQUIPMENT



Illegal dumping on the rise in Pennsylvania

Since stay at home orders were issued on April 1 due to the novel coronavirus (COVID-19), Keep Pennsylvania Beautiful has received 73 reports identifying illegal dumpsites in 35 different counties. Fourteen percent of the sites are located on state park, state forest, or game lands.

These reports make up 70 percent of those received by the organization so far this year. The increase in dumping could be a result of temporary suspension of trash hauling and recycling services citing worker safety and other limitations. Bulky waste pick ups and special collections of electronics, tires and appliances have also been postponed until late summer or fall, increasing the problem.

The most frequent item reported was household trash, which was found at 47 sites, followed by tires at 31 sites. Other items reported were appliances, electronics and building supplies, such as demolition and construction waste.

Keep Pennsylvania Beautiful, a statewide nonprofit, is asking Pennsylvania residents to help locate and report illegal dumping and/or graffiti. They are offering a security camera loan program to curb illegal dumping which offers three concealable, lockable cameras and accessories.

For a direct link to additional information about borrowing security cameras, view this article on www.AmericanRecycler.com.

Meridian Waste Florida named best trash company in Nassau County

Meridian Waste, an integrated, non-hazardous solid waste services company, has been voted the Nassau County Record's Best Trash Company 2020.

"We have a hardworking team and couldn't be happier to be recognized as the Best Trash Company in Nassau County," said Meridian Waste Florida district manager Dave Shepler. "We do our best daily to keep the environment clean and green and play a large role in ensuring public health and safety. Thanks to the Nassau County Record readers for recognizing our contributions to the Nassau community in which we serve."

Meridian Waste Florida brings together a team of experts who have been in the environmental services industry between 20 to 30 years. The full Meridian Waste Florida team of 25 employees is lead by:

•Dave Shepler is a 30 year industry veteran serving as the district manager in Florida and is responsible for all aspects of the Florida solid waste collection operations, which include over 5,000 residential customers and 850 commercial/ industrial customers.

•Marty Kelly, facility manager, brings 30 years of experience in the environmental services industry and is



Meridian Waste Florida's team members (left to right): Crystal Dixon – customer service, Marty Kelly – facility manager, April Waters – billing/payables, Ricky Rochester – residential manager, Donna West – office manager, Ricky Williams – commercial/roll-off manager.

an expert in maintaining facilities, fixing equipment, procurement of parts and materials, and operational management.

•Donna West, office manager, and customer care lead, brings 20 years of experience, including customer service, billing, and specializing in community and municipal relationships building. If you see a Meridian Waste entry in a local parade, you'll see her decorating and representing the company.

•Ricky Rochester, residential manager, has nearly 13 years of experience in the industry. Rochester

knows the business from his decade as a trash hauler working closely with the residential customers on his routes. He oversees all residential collection and truck routing, in addition to the overall safety of driver and helper teams.

•Ricky Williams, commercial manager, has been in the industry for 25 years. Currently, he oversees all commercial business endeavors including roll-off container delivery for Jacksonville, Duval and Nassau Counties.

"As a winner, learn not to let negative comments affect you. Just treat it as firewood that feeds your fire. Soon that fire will be so big and so bright that those who criticized you will smell the smoke, even if they happen to be on the other side of the world."

—Kevin Abdulrahman

NEW & USED EQUIPMENT FINANCING AVAILABLE

Get the cash you need — quickly and at a great rate!

As experts in the industry, we'll find you the best deal!

Give us a call today and we'll discuss your options.

DADE
Capital Corp.



800-823-9688

**35 Years of
Specializing in:**

- Salvage
- Recycling
- Waste



APPLY ONLINE

www.DADECapital.com

NEW PRODUCT SHOWCASE



ASSMANN'S NEW STORAGE TANKS HAVE SMALL CONICAL BOTTOM

Assmann's new small conical tanks are available with an all-plastic stand, virtually eliminating points for corrosion due to steel components. These new conical tanks include polyethylene stands that raise the base off the floor, allowing room for drainage. The tanks feature a 45° molded-in slope bottom for complete drainage and are designed for stationary use indoors or out.

The conical tanks are seamless molded one-piece units. Both the tank and the stand are corrosion resistant, making the unit maintenance-free with no need to repaint or replace a steel stand.

Assmann Corporation
300 North Taylor Road
Garrett, IN 46738
888-357-3181
www.assmann-usa.com



BPS VIBRATORY FEEDERS ARE DESIGNED FOR TOUGH JOBS

Vibratory feeders manufactured by Best Process Solutions, Inc. (BPS), are designed to smoothly convey products. Flow of material is adjustable and flow rate can be variable or fixed.

Available in electric or air-operated models, they are designed with above, below or side mounted drives and can be arranged for base mounting or overhead suspension with custom lengths.

Several basic models are available and options include the BPS Inertial Isolation System™ that is designed to eliminate the transfer of vibratory energy to support structures and buildings.

Best Process Solutions
1071 Industrial Parkway
Brunswick, OH 44212
330-220-1440
www.bpsvibes.com



DOOSAN INFRACORE INTRODUCES UPDATED MINI EXCAVATORS

Doosan® Infracore introduces the new DX42-5K and the DX50-5K mini excavators. The excavators are updates to the prior iterations, featuring new innovations to increase machine performance, versatility, operator comfort and reliability.

The Doosan DX42-5K and DX50-5K mini excavators are in the 4 to 5 metric ton size and their compact size and mobility make them valuable for commercial and residential developments and landscape projects. In addition, the machines' versatility makes them perfect for utility companies that perform underground construction tasks.

Doosan Infracore, LLC.
2905 Shawnee Industrial Way
Suwanee, GA 30024
678-714-6000
www.doosanequipment.com



INTERCOMP INTRODUCES THE TS30 TOUCHSCREEN CPU

Intercomp is proud to introduce the TS30™ Touchscreen CPU to its line of portable vehicle weighing equipment. This modern scale CPU provides an intuitive, user-friendly interface and works in static or weight-in-motion applications, increasing efficiency.

The indicator communicates with up to 12 scales within 300', line-of-sight, using our reliable RFX Wireless Weighing Technology. This allows users to control all functions of each scale pad from a safe distance and view wheel, axle, group and gross weights at a glance.

Intercomp
3839 County Road 116
Medina, MN 55340
763-476-2531
www.intercompcompany.com



TALBERT'S AXLE TRAILER OFFERS INCREASED CAPABILITIES

Talbert Manufacturing, a North American leader in specialized heavy-haul solutions, offers the 5553TA traveling axle trailer for optimum versatility and productivity.

With a planetary winch and Talbert's redesigned piggy-back cylinder for over 25 percent more power to move axles in adverse conditions, the 55 ton 5553TA excels in moving low clearance and dead loads, making it ideal for towing and recovery operations. An industry-leading 36" loaded deck height and low 6° load angle provide safe, efficient loading and unloading for a number of additional applications.

Talbert Manufacturing
1628 West State Road 114
Rensselaer, IN 47978
800-348-5232
www.talbertmfg.com

Vehicles

■Continued from Page B1

"RNG helps reduce methane emissions from landfills and CO2 emissions from flaring. It also reduces landfill size and prolongs the landfill's usable lifetime," Friedberg said.

Finally, utilizing alternative energy vehicles could allow the recycling industry to enter into a more circular economy. Why not take organic waste and make something productive with it – as opposed to incinerating it or having it degrade in a landfill (and create GHGs). Also, a waste system in which organic waste is collected separately is much cleaner and healthier than mixing it in with municipal solid waste. This will reduce the amount of vermin and rats on the streets.

Comora said the waste industry has been a leader in adopting CNG and they've benefited tremendously from lower fuel cost, stable pricing and less maintenance cost. Further, the communities that they operate in have benefited from reduced emissions and quieter trucks.

"We're now seeing those same companies and municipalities start to embrace RNG, an ultra-low-carbon natural gas alternative," Comora said. "RNG is the perfect way to further improve sustainability with no added cost – and in some states, you're going to pay less for the fuel than conventional natural gas because of state incentives."

Costs Involved and Ongoing Challenges

While the environmental impact of alternative waste vehicles is celebrated, the cost of these waste management vehicles is generally more expensive than diesel vehicles. Much of this is simply because there is an established market for diesel vehicles and there are more manufacturers and options compared to alternative fuel vehicles.

As Friedberg explained, these upfront costs are compounded by the need for fueling and charging infrastructure, which are also limited compared to diesel options, modifications needed in fleet maintenance facilities for meeting operations and environmental health and safety requirements.

What's more, CNG and LNG vehicles need specialized fuel storage and handling systems, and additional equipment is needed for refining RNG. "For example, you will need additional

equipment to remove siloxanes, hydrogen sulfide and balance gases to create RNG from biogas – otherwise, truck engines will very quickly degrade – as well as compressors for CNG from biogas," Friedberg said. "Electric vehicles mitigate some of these issues. Additionally, there are various federal, state and local government incentives for vehicle procurement, infrastructure installation, and fuel switching that can help offset these added costs."

Concerning electric vehicles, Comora believes we are still far away from seeing commercialized technology that can support all-electric Class 8 applications.

"There are numerous challenges in terms of fueling infrastructure and charge time in addition to the trucks themselves which make it difficult to predict if/when electrification will be a viable option," Comora said. "It is also important to note that electrification is not a fuel source – the source of that electricity must be considered in the life cycle emissions of the technology."

That said, Hudson County Motors and BYD recently announced that they will provide the first all-electric refuse trucks on the East Coast capable of working an entire route. These five all-electric rear loader collection trucks will go to work on normal daily collection routes, providing regular zero-emission collection services for the City of Jersey City, New Jersey. BYD, the leader in commercial electric truck deployments in the U.S., is the world's largest manufacturer of electric vehicles.

Coming Down the Road

Over the next 10 years, alternative fuels, and particularly renewable natural gas, will play a critical role in efforts to help companies become more sustainable and mitigate the transportation sector's harmful effects on the climate. Comora and other industry experts continue to see more and more alternative fuel supplies coming online from investments in new RNG plants making the fuel more readily available. And fueling infrastructure continues to expand, which will also drive greater adoption.

As such, the alternative fuel waste vehicles market is evolving rapidly, and Friedberg suggested that we may witness diesel-free waste collection fleets by mid-century. Private waste collection agencies like Republic Services and Waste Management Inc. are already leading the way, and Friedberg believes the adoption rate will only increase with improvements in technology and lower upfront costs, particularly for battery electric vehicles.

"This transition can be further accelerated by incentives for alternative fuel vehicles or a ban on diesel use," Friedberg said. "We're seeing some positive trends across the industry, not just for cities. The Port of Seattle recently signed a contract with U.S. Gain, an RNG distributor, to supply fuel for its heating and fleet. This agreement was in response to their objective of cutting its greenhouse gas emissions in half by 2030. The big question for most municipalities and waste management companies is no longer 'if' they should electrify refuse vehicles but 'when.'"

It
only
takes

With just ONE call to
American Recycler News,
you'll get the equivalent
of an entire sales force.

Waste Management and Advanced Disposal revise terms

Waste Management, Inc. and Advanced Disposal Services, Inc. have amended the terms of the definitive agreement under which a subsidiary of Waste Management will acquire all outstanding shares of Advanced Disposal for \$30.30 per share in cash, representing a total enterprise value of \$4.6 billion when including approximately \$1.8 billion of Advanced Disposal's net debt.

Waste Management and Advanced Disposal also announced that they have entered into an agreement for GFL Environmental to acquire a combination of Advanced Disposal and Waste Management assets for \$835 million, representing approximately \$345 million in total revenue based on 2019 results. Approximately \$300 million of the total revenue is related to assets and businesses being sold to GFL Environmental to address substantially all of the divestitures expected to be required by the U.S. Department of Justice. As with the Advanced Disposal acquisition, the sale of assets to GFL Environmental remains subject to clearance from the U.S. Department of Justice and is also conditioned on the closing of Waste Management's acquisition of Advanced Disposal.

"We continue to be excited by the compelling strategic rationale and financial benefits of the Advanced Disposal acquisition," said Jim Fish, president and chief executive officer of

Waste Management. "Over the last several months, as we have worked to gain regulatory approval from the U.S. Department of Justice, we have become increasingly convinced that the people and customer additions this acquisition brings to Waste Management will be of tremendous value and we are confident that Waste Management's operational excellence will allow us to achieve expected synergies. In addition, we are pleased to have reached an agreement with GFL Environmental for substantially all of the divestitures anticipated to be required by the U.S. Department of Justice at a valuation that appropriately reflects the high-quality nature of the Advanced Disposal and Waste Management assets to be sold. Today's announcement positions us to move forward with collective focus on satisfying the U.S. Department of Justice review process and successfully completing both transactions."

"We believe the revised agreement with Waste Management, coupled with our joint agreement to sell substantially all of the divestitures to GFL Environmental, delivers significant value and certainty of closing to Advanced Disposal stockholders," said Richard Burke, chief executive officer of Advanced Disposal. "We continue to work hand in hand with the Waste Management team, GFL Environmental and the U.S. Department of Justice to gain regulatory clearance and

complete the transaction."

Having completed significant additional diligence, Waste Management expects annual cost and capital expenditure synergies to exceed the \$100 million previously announced. Waste Management continues to expect near-term benefits to be driven by core operating performance and SG&A cost savings, with long-term margin expansion and improved free cash flow conversion from network optimization, operating and capital efficiencies and an improved cost of capital.

The Advanced Disposal acquisition, which was unanimously approved by the boards of directors of both companies, is expected to close by the end of the third quarter of 2020, subject to the satisfaction of customary closing conditions, including regulatory approvals and approval of the amended definitive agreement by a majority of the holders of Advanced Disposal's outstanding common shares. Canada Pension Plan Investment Board, which owns approximately 18 percent of Advanced Disposal's outstanding shares, has entered into an amended and restated voting agreement whereby it has agreed under the terms of the agreement to vote its shares in favor of the amended transaction. Waste Management, Advanced Disposal, and GFL Environmental continue to work cooperatively with the U.S. Department of Justice to obtain necessary regulatory

clearance. Waste Management and Advanced Disposal are pleased with the progress that has been made to date and believe they are on track to receive final regulatory approval in a time-frame that is complementary to the expected completion of the Advanced Disposal shareholder vote by the end of the third quarter of 2020. The amendment to the definitive agreement also modifies certain closing conditions and termination provisions, including an extension of the deadline to complete the transaction and a \$250 million termination fee payable by Waste Management to Advanced Disposal if the closing does not occur in certain circumstances when such clearance has not been obtained.

In connection with the review by the U.S. Department of Justice, Waste Management and Advanced Disposal entered into an agreement for GFL Environmental to acquire certain assets. This divestiture transaction is also expected to close by the end of the third quarter of 2020 and remains subject to customary closing conditions including regulatory approval and the closing of Waste Management's acquisition of Advanced Disposal. The agreement with GFL Environmental addresses substantially all of the divestitures anticipated to be required by the U.S. Department of Justice, which has not yet approved the transaction.

Sorting systems ■Continued from Page B4



Redwave Solutions US LLC

process, like vinyl based materials. Our biological treatment systems are also used for composting facilities. At Redwave, we believe it's not waste, it's value," said Parker Pruett, sales manager.

Pruett added, "Overall, the amount of materials that have been diverted from landfills in the U.S. since 1990 has increased from 43 percent to 48 percent of the total MSW. Composting volume has doubled and recycling volume has increased by 20 percent. Redwave's ability to create turnkey sorting systems provides tremendous value to recyclers all over the world. Using our unmatched technology, clients minimize disposal costs and create revenue streams for high purity sorted raw

materials like paper, plastics, glass and nonferrous metals. Specific to RDF production, initiatives like California's recent passage of SB 100, which mandates 60 percent of that state's energy to come from renewable sources by 2030 and 100 percent by 2045, drives increased interest in this technology."

Redwave Solutions US is the North American division of BT-Wolfgang Binder GmbH, an international plant design/build firm with a proprietary line of sensor sorting equipment for the recycling industry under the Redwave trademark. Over the past 20 years, the company has become a world leader in several segments of the recycling industry.

Casella appoints Kirk to board

Casella Waste Systems, Inc., a regional solid waste, recycling and resource management services company, has appointed Rose Stuckey Kirk to Casella's board of directors.

Kirk is currently the chief corporate social responsibility officer and marketing executive of Verizon Communications Corporation, a provider of communications, information and entertainment products and services worldwide. Kirk oversees the strategic direction for all of Verizon's social impact marketing activity. In addition, Kirk is responsible for the company's corporate social responsibility investment strategy and programmatic build-out.

Kirk joined Verizon in 1998 and has held various positions in sales, customer service, wholesale operations, product development and marketing at Verizon. Kirk is a member of the Women's Leadership Board of the Harvard Kennedy School, the World Economic Forum Initiative on Education, Gender and Work, and the Executive Leadership Council. Kirk holds a BS in Communications from Arkansas State University-Jonesboro.

The appointment of Kirk expands Casella's board to 10 members, 8 of whom are independent directors. Kirk will fill a vacancy on the board as a Class III director and was appointed to the board's compensation committee.

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

**Wendt Mega
Shredder
115 x 130
Hammermill**

**IN CONTAINERS,
READY TO SHIP!**



- **7,000 HP**
- **Never Used!**
- **ENTIRE Shredding System**



Inquire at:

DADE Auctions, Inc.
www.DADEAuctions.com
844-222-2020

FEATURED BUY NOW LISTINGS



2019 Al-jon 580 Auto Logger. Only 570 hours!
Selling due to market conditions.



1987 Komatsu Wheel Loader.
Quick connect with bucket and forks.



Fairbanks 70' Truck Scale. Load cells and digital readout are in good shape.



2005 John Deere 330LC.
Equipped with a 2011 Genesis 440R shear.



Case 721 Wheel Loader.
Includes a bucket and two sets of forks!



American Pulverizer Ring Mill
Model 4800. Recently rebuilt!



GE 3000HP Shredder Motor.
In storage. 60Hz, 4,160 Volt, 712 RPM.



2005 Al-Jon Impact V Auto Crusher.
Road ready. Start crushing today!



Guidetti Sincro 315 Wire Granulator.
Only 267 hours!