AmericanRecycler.com





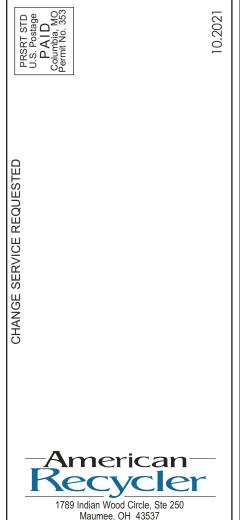
### A look at the post-consumer plastics markets



### HAT'S INSIDE

Scrap Metals MarketWatch 10	)
Salvaging Millions12	
Business Briefs14	ŀ
Classified Advertisements15	,
Equipment SpotlightB4	r

- Potential impact on recyclers from new bills and legislation. Page A6
- Cement, iron ore and steel boost Great Lakes – St. Lawrence Seaway shipping. Page A11
- Partnership tests the use of plastic in pavement. Page B3



## Challenging times strike the medical waste industry

### by MAURA KELLER mkeller@americanrecycler.com

Like many industries, the ongoing pandemic has had a significant impact on the medical waste industry - requiring waste and recycling companies to alter their processes and procedures, while keeping their frontline employees safe.

Jim Anderson, vice president of product management and innovation at Stericycle, said that as we enter a new phase of the pandemic with the Delta variant, the medical waste industry will continue to face strong demand for services, all while continuing to manage through pandemic headwinds such as labor shortages, supply chain challenges, and higher costs for fuel and other commodity prices.

"In Q2, we saw an increase in the average weight per container, which we believe is due to increased elective surgery waste," Anderson said. "At the same time, demand for medical waste services is expected to continue from the ongoing testing and treatment of COVID-19. Medical waste management companies are also gearing up for more sharps waste as the flu season approaches and potentially coincides with COVID-19 vaccine boosters and the availability of vaccines for children under the age of 12."

### **Embracing Challenges**

Erika Kimball, RN, MBA, founder and principal consultant at Kimball Sustainable Healthcare, sees additional challenges currently affecting the medical waste industry. As in other sectors, COVID has exposed longstanding challenges in the medical waste industry: process challenges and product challenges.

"From the waste management perspective, variations in material definitions and handling instructions among different entities along the waste management process can create safety and quality gaps," Kimball said. "Given the conservative approach to medical waste management, these gaps have increased the generation and overtreatment of waste during the pandemic. From the materials management perspective, COVID has shown some of the inherent limitations of single-use disposable plastic medical supplies."

Inside healthcare facilities, there are critical supply shortages due to high demand coupled with supply chain disruption.

"In the community, we have seen the emergence of single-use disposable



masks and gloves as litter in public spaces and as contaminants in recycling facilities," Kimball said.

A key challenge with waste generated from COVID-19 - as opposed to other medical waste - is how decentralized it is. As Anderson explained, consumers aren't just going to their hospital or primary care physician to be tested for COVID or to receive the vaccine. They are going to retail pharmacies, school gyms, large stadiums and even parking lots, in addition to standard healthcare settings, to receive care related to COVID-19.

between "Another difference COVID waste and other medical waste is the short timeframe in which the waste was generated," Anderson said. Typically, waste is generated over a wider time period (e.g., flu season or waste surrounding ongoing medical procedures), which allows waste management companies to anticipate volume and adjust processes over time. Also, the unpredictable nature of the COVID-19 virus has made it more difficult to anticipate volume.

"The unpredictable nature of the virus, the short time frame in which the waste is generated, and how decentralized it is have made the net for procedures wider and more complicated than standard medical waste," Anderson said. This has required medical waste companies to be flexible and creative in coming up with solutions to service their customers where they are literally and figuratively.

Anderson said another important factor in successfully managing COVID-19 waste is being able to scale capacity to manage the fluctuating demand. While vaccination and testing had been on the decline, they are ramping back up again rapidly due to the Delta variant. This has required medical waste companies to build infrastructures that are specifically designed to accommodate these rapid shifts in demand.

Stericycle has been successful in navigating the unique nature of COVID-19 waste because the company's waste management network is designed to scale capacity to meet fluctuating demand. Stericycle also modernized its fulfillment center and added extra shifts to scale up production of sharps mail back kits by 400 percent.

"Additionally, we increased our available inventory of reusable sharps containers," Anderson said. "When considering all the services we offer to dispose of sharps, including mail back, we are poised to handle well over 700 million needles in North America on a monthly basis with our existing capacity."

### **Industry Impact**

Waste and recycling tasks may involve a high level of interaction with waste items, may be performed in environments prone to airborne particles such as dust, and may necessitate close contact with other people. Kimball stressed that this reinforces the need to closely follow existing safety protocols See CHALLENGES, Page A4

## **HIGH-SPEED BALER/LOGGER**





- 20' Charge Box
- Heavy-Duty Knuckle Boom

### 3/8 AR400 REPLACEABLE WEAR PLATES

Superior Lift and Reach

### **OVERHEAD CONTROLS**

## "WHAT OUR CUSTOMERS SAY"

We have been using our new overbuilt baler for a little over 2 years now and continue to be impressed. It has been dependable and much more efficient than our balers in the past. This has been a durable machine with little down time other than routine maintenance. We recently replaced the grapple with their new and improved version and couldn't be more pleased. The overbuilt design is simply easy to operate and makes a quality bale that is easy to load. Thank you for making a quality and dependable baler that we can count on and enjoy operating. —*Kevin Stroebel* 

Manager, Pacific Steel & Recycling Operates 5 OverBuilt Balers Rock Springs, WY We purchased our OverBuilt Car Crusher new in early 2012. This is the best crusher we have ever owned. The Sales and Service Staff have been great to follow up making sure we have all our filter and maintenance items needed to keep our machine running smoothly and efficiently.

—Doug Butler Owner, Butler Salvage Torrington, WY

## HIGH-SPEED CAR CRUSHER



- Largest Opening on the Market
- Advanced Oil Recovery System with Sludge Traps and Large Clean-outs
- State-of-the-Art Automation System
- 400-gallon Fuel Cell and Optional Lockable Auxiliary Fuel Pump
- Optional High-speed Oil Bypass System
- 22' & 24' Crusher Chambers Also Available
- Twin Lid Safety Lock System Engaged from the Ground
  - Ground-accessible gang grease stations.

## ★ THE ONLY TRUE HIGH-SPEED SYSTEM AVAILABLE





Huron, South Dakota

800-548-6469 605-352-6469 www.OverBuilt.com sales@overbuilt.com



## Partnership recycles 1.3 million glass bottles

A rural Pennsylvania glass bottle manufacturer and a New York City beverage company are two ends of a supply chain story that worked collectively to keep 1.3 million cobalt blue glass bottles out of the landfill in a glass recycling success story.

In early 2021, the Glass Packaging Institute (GPI) was alerted of more than a million empty cobalt blue wine cooler bottles soon to be disposed of from a warehouse location in Bath, New York. Over eight weeks and many strategy sessions later, those bottles landed at Ardagh Group's glass manufacturing plant in Port Allegany, Pennsylvania, as recovered glass ready to be recycled into new containers.

Stacked floor to ceiling, Pinnacle Rental Centers of Bath housed nearly 500 skids of never-filled Myx Fusions Moscato bottles. Myx is co-owned by music mogul Nicki Minaj. Since the bottles were unfilled, the New York state \$0.05 deposit was not applicable, rendering that avenue for landfill diversion a dead end. Pinnacle cast a wide net in attempts to get the material into the bottle-to-bottle recycling stream, ultimately landing on the desk of Scott DeFife, president of GPI and the Glass Recycling Foundation.

"The Glass Packaging Institute is committed to promoting glass recycling," said DeFife. "This seemed like a complicated, but solvable, problem if we could just get the right stakeholders aligned."

DeFife reached out to Prism Glass Recycling (Prism), a division of Erie Management Group, that was recently awarded a grant from the Glass Recycling Foundation for a glass recycling drop-off program in Erie County, Pennsylvania. The proximity to the Pinnacle warehouse near Bath made Prism a common sense logistical choice. Laura Guncheon, vice president, project management office at Erie Management Group, is a Port Allegany native and learned of an upcoming July 2021 cobalt batch at Ardagh. Guncheon then contacted Campbell Trucking in Galeton, Pennsylvania, a local trucking company familiar with the territory, who didn't balk at the challenge of moving a 500skid count.

The effort was then made to find a glass processor to turn the whole bottle material into furnace ready cullet. A small processor near Ardagh didn't have the capacity to process the volume of bottles within the time constraints, and the processing puzzle piece remained elusive. Prism then connected with Central Recycling Cooperative of Horseheads, New York, 40 miles from the Pinnacle warehouse. Prism worked with Don Johnson, operations manager of Central Recycling Cooperative, to transport the bottles from Pinnacle.

"It was a remarkable juxtaposition of people, places and time," said Gun-



for Ardagh Glass Packaging's furnaces to become new bottles.

cheon. "Ultimately, an exercise in logistics led to hundreds of tons of glass material finding life again in new bottles."

Increasing volumes of post-consumer recycled material is at the forefront of sustainability goals across the glass industry.

"Our industry needs more quality glass cullet to recycle into new containers — this saves energy, employs people and is better for the planet," said DeFife. "This story could be happening in other communities, and we want to make people aware that unique partnerships like this can help to recover and recycle more endlessly recyclable glass."

Glass is 100 percent recyclable and can be recycled endlessly without loss in quality or purity. Glass has always been recycled in North America and made into new bottles. Recycling glass relies on quality glass, transportation logistics and domestic end markets to complete this essential circular economy story.



» 2014 CAT MH3059 »

8,100 Hours, Material handler, as nice as they come. Ground access and high rise hydraulic cab, 325 Horsepower, 130,000 lb Operating weight, 35' Boom, 29' Stick, Setup for grapple. Quality used machine with documented history. Pressure tested and ready to go. Less than half the price of new. **\$348,000** 

BELLEVUE, IOWA | 563.872.4112 Ales@JJSCHECKEL.COM | JJSCHECKEL.COM



## Challenges

■Continued from Page 1

and standard workplace COVID safety measures.

"Above standard precautionary measures, the best way to ensure safe waste management and recycling, especially among medical waste generators, is through open communication," Kimball said. "Waste management is a team sport, from the point of generation to final processing. Sharing materials management best practices, definitions, and safety protocols among upstream customers and downstream processors can help to clarify and align processes, improving quality and trust."

It is also necessary for waste and recycling companies to be flexible and meet their customers where they are. Anderson suggested that during the pandemic, that can mean non-traditional settings, such as a "pop up" location in a parking lot versus a doctor's office or hospital. Of course, safety procedures must be considered and developed for these new settings to ensure precautions are taken to protect everyone.

"Safeguarding medical waste professionals from needle stick injuries and potentially harmful and contagious COVID-19 waste is equally as important as protecting the healthcare professionals administering care as well as the public," Anderson said. "At Stericycle, we follow all safety procedures set by regulatory agencies, our company, and our customers, including COVID-19-related protocols and PPE guidance."

### A Focus on Employee Safety

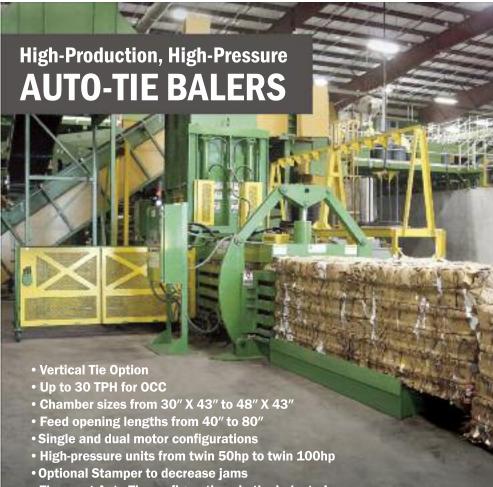
For five years, Dean Calhoun worked at Waste Management as an environmental, health and safety coordinator with responsibilities for protecting worker safety at landfills and recycling centers. Today Calhoun is currently president and chief executive officer of Affygility Solutions, an EHS consulting firm serving the life science industry. He also serves on the American Board of Industrial Hygiene.

Calhoun said that like most industries that require a combination of a physical demanding job and strict adherence to regulatory requirements, finding qualified workers is always challenging. In addition, in the medical waste transportation side of the business, drivers are required to have a commercial driver's license (CDL).

"Drivers with a CDL are in high demand across all industries and employee turnover is high," Calhoun said. "Furthermore, due to social distancing requirements, most loading dock areas have policies in place for reduced capacity, thus causing supply chain disruptions."

Calhoun said that existing safety requirements and training will be adequate as long as employees adhere to those requirements (vaccinations, medical surveillance, wearing of personal protective equipment).

"This also requires cooperation from the medical waste generating facilities, such as hospital and clinics," he said. "They should be reminded through written alert or other correspondence that proper packaging of the medical waste prior to pick-up is



• The most Auto-Tie configurations in the industry!

**ERNATIONAL BALER** 

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

required. Medical waste collection personnel should be reminded not to accept improperly packaged medical waste. "

Currently the OSHA requirements to protect workers from COVID-19 exposures are evolving. Management personnel should routinely review the most current recommendations and guidance issued by OSHA.

Looking Beyond the Pandemic

Kimball said the future of the medical waste industry involves leveraging lessons learned from the COVID crisis to improve holistic materials management. Waste management companies and recyclers play a key part.

"We can extract value from the medical waste stream throughout the industry by establishing shared best practices for disposal, collection and end-processing of materials. With better processes in place, medical suppliers must use better materials and minimize single-use disposable plastics," Kimball said. The measures needed to ensure safety during COVID, strong partnerships and communication among medical waste stakeholders, also happen to be the first steps toward better waste management solutions and innovation.

Because of the expensive and nonsustainable nature of off-site transportation and processing of regulated medical waste, Calhoun predicted that there will be an increased emphasis on on-site treatment technologies. "This will not only reduce the volume of regulated medical waste, but indirectly reduce the carbon-footprint due to the transportation of medical waste," Calhoun said.

"As artificial intelligence and image recognition improves, companies will see a significant increase in the use of robotic sorting devices. This will not only improve efficiency, but also will greatly reduce any safety related issues.'

Of course, with increasing demand for safe, responsible, and sustainable waste management methods and technologies, the COVID -19 pandemic has brought a renewed global focus on the medial waste management industry.

"We believe the industry will play a significant role in shaping a healthier and safer world for everyone, everywhere, every day," Anderson said. "This starts by reimagining waste management facilities to reduce annual energy consumption, implementing technologies to convert waste-toenergy, and identifying ways to reduce greenhouse gas emissions." Anderson said the industry will also be challenged to modernize its fleet of vehicles to be more environmentally friendly. Additionally, automation will continue to gain traction as a way to improve productivity while increasing worker safety.

"It's an exciting time to be working in medical waste management," Anderson said. "Going forward, it's important that we continue to work closely with regulators and healthcare providers to deliver innovative solutions in a safe, responsible and sustainable way."

Do you want to hear a construction joke? Sorry, I'm still working on it.



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

#### **Owner, Publisher and Editor**

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

**Print and Digital Production** 

MARY E. DARLOW mary@AmericanRecycler.com

#### **Marketing Representatives**

**MARY M. THORNTON** maryt@AmericanRecycler.com **MARY E. DARLOW** 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 2021 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 ot 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.

## Bunting supports passage of rare earth magnet manufacturing tax credit

On August 10, 2021, Representatives Swalwell (CA-15) and Reschenthaler (PA-14) introduced the bipartisan Rare Earth Magnet Manufacturing Production Tax Credit Act (H.R. 5033) to provide U.S. suppliers with tax incentives for domestically producing rare earth magnets.

Currently, China supplies 90 percent of the world's rare earth magnet needs, and it is essential to support domestic rare earth infrastructure so that the U.S. does not remain subject to the actions of foreign governments.

Bunting is part of the coalition urging Congress to include the production tax credit for rare earth magnets proposed in H.R. 5033. As a manufacturer of magnetic equipment, custom magnets and magnetic assemblies, they support H.R. 5033's efforts to support domestic manufacturing of rare earth magnets using domestic materials.

A domestic rare earth magnet supply chain will better enable Bunting to provide the magnet components used in essential applications including plastics manufacturing, food safety, national defense, automotive, medical and more. Rare earth magnets are key to advancing new technologies that will drive economic growth and quality of life for all Americans.

This legislation would empower Bunting and their industry peers to build a domestic rare earth magnet supply chain that is free of foreign reliance and supports the growth and innovation of the American economy.

## **RRS** launches group for policy creation and implementation

(RRS), a sustainable material and resource consulting firm, launched Signalfire Group. As a subsidiary of RRS, Signalfire Group will provide research, planning and implementation support to governments and organizations utilizing policy and regulation as a tool to guide sustainable materials management and circular economy strategies.

RRS created the new subsidiary to dedicate resources to help manufacturers, retailers and governments enter and participate in new recycling systems. Signalfire Group provides services focused on developing and implementing best-in-class policy and regulatory approaches - navigating the sometimes-complex implications for business and community. Services include:

Signalfire Group is led by three environmental industry veterans with experience in sustainability, materials management, policy and product stewardship:

•Resa Dimino – Dimino has worked in recycling businesses (Bronx 2000/Big City Forest, WeRecycle), with trade groups and served as the lead policy staff for the New

Resource Recycling Systems, Inc. York State Department of Environmental Conservation (DEC). While at DEC, she managed the development of the state's Beyond Waste 10 year sustainable materials management strategy. Dimino currently serves as a managing principal at RRS overseeing the infrastructure and engineering team.

> •Garth Hickle – Hickle led the product stewardship program for the Minnesota Pollution Control Agency overseeing the implementation of EPR programs for rechargeable batteries, electronics, and architectural paint. He is currently serving as the managing director of the International Electronics Management Network and has been a board member of the Sustainable Electronics Recycling International and Conservation Minnesota.

> •David Stitzhal – Stitzhal has served as a delegate to national product stewardship dialogues and served on teams advising on product stewardship and EPR matters. He currently serves as board president of the National Stewardship Action Council and president of Full Circle Environmental, Inc.



## Maximize your Stainless Steel Recovery

GLOBAL. MAGNETIC. FORCE:

### SSSC<sup>®</sup> Stainless Steel Separation Conveyor

- 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 Newton@BuntingMagnetics.com BUNTINGMAGNETICS.COM

## Potential impact on recyclers from new bills and legislation

#### by JANE MARSH

The U.S. Senate recently passed a bipartisan infrastructure bill which could have a large impact on the recycling industry. Other green mandates being pursued by the Biden Administration will bring about changes in tax incentives and bills passed on federal and local levels for waste management.

#### Challenges in Recycling

Nearly 80 percent of America's power supply derives from fossil fuels, limiting industrial sustainability. Recycled products take on the carbon footprint generated through manufacturing processes. The plastics industry produces nearly 850 million emissions annually, enhancing environmental degradation.

Recyclers can utilize the Biden Administration's Build Back Better (BBB) plan to divert their energy reliance away from fossil fuels and support the efficiency of their practices. The plan should increase access to new technology and employment opportunities.

The BBB plan has the goal of increasing the sustainability of America's infrastructure. It distributed \$2 trillion throughout the clean energy sector, enhancing production and distribution efforts. Renewable energy companies can utilize the funding to increase industrial accessibility to emissionless electricity.

The recycling sector can decrease greenhouse gas emissions by converting its energy reliance from fossil fuels to renewable electricity. Nearly 69 percent of the power used by industrial facilities comes from coal.

Large-scale facilities may require

more energy than a system can produce during the day. Companies can create and use efficient power storage technology to meet their manufacturing needs.

The Vistra energy company used its funding to create a renewable electricity storage facility in Monterey, California. It converted an old power plant into a lithium-ion battery containment center. An old smokestack holds a 300 megawatt battery, producing and storing 1,200 megawatt-hours of clean electricity. It plans on expanding the project and adding another 100 megawatt battery to generate 1,600 megawatt-hours of energy.

Part of the Administration's plan involves developing an electric grid to support sustainable industrial development. Vistra's energy storage facility model can be used to create large-scale production and containment technologies. Increasing the storage of renewable electricity expands recycling companies' access to clean energy alternatives.

Other programs are using the BBB funding to advance hydrogen storage technology. Engineers are accessing long term storage using fuel cells. The production devices use solar and wind power, creating hydrogen from electrolysis.

They hold hydrogen in storage containers and convert it into electricity using fuel cells. Unlike conventional renewable energy devices, the system can release high quantities of electricity based on real-time demands. The process is also cost-effective, saving recycling facilities money over time.

Recycling facilities can decrease their utility costs when using renewable

energy. They may also increase their profitability by reducing their environmental impact. Improving a company's energy efficiency with clean electricity devices can enhance its appeal among eco-consumers.

#### **Returning Recycling Bills**

As the pandemic's interference dissipates, Congress will focus its efforts on re-evaluating past recycling acts. Representative Alan Lowenthal and Senator Jeff Merkley recently brought the Break Free From Plastic Pollution Act (BFF-PPA) back to the table.

Officials developed the BFFPPA to decrease packaging waste, reduce plastic pollution, and improve the recycling system. The bill would hold companies responsible for their packaging pollution rather than the consumer.

Enhancing the producer's responsibility will increase companies' investments in the U.S. recycling system's infrastructure. The industry's alterations may improve recyclers' abilities to create a circular economy. It will also expand current systems, producing enough power to process 100 percent of recyclables, increasing employment opportunities.

Congress is also revisiting the RECOVER Act (H.R. 2357), introduced by Representatives Larry Bucshon and Tony Cárdenas. The bill may deliver \$500 million to recycling programs, improving collection and processing practices. It would enhance the curbside equipment available to recyclers, increasing the efficiency of pickup routines.

The bill would also influence the development of a recycling infrastructure program in the Environmental Protection

Agency (EPA). Involvement from the EPA would increase funding availability and boost efficient management programs. The agency may oversee the recycling system's progress and inform Congress of notable changes.

Bringing national attention to recycling in America can improve working conditions and optimize processing routines. Recyclers may notice an increase in curbside content after the bill takes effect. They may also experience enhancements in system functionality with more supportive technology.

Professionals also predict enhanced engagement between Congress and recycling groups, like The Recycling Partnership. The two may work together, accessing funding for system expansions. Additionally, they can address challenges deriving from the pandemic.

#### **Tax Credit Extensions**

The current administration also increased the residential and commercial sector's access to renewable energy by extending various tax incentives. The solar investment tax credit was set to expire in 2020. Congress passed a two year long delay, increasing the affordability of sustainable devices.

Solar purchases made between 2021 and 2023 are eligible for a 26 percent tax credit. Purchases made in 2023 receive a 22 percent incentive and 10 percent in the following year. By 2025, the solar investment tax credit (ITC) reaches 0 percent.

Congress extended wind power tax incentives this year. The wind production tax credit (PTC) provides purchasers with See IMPACT, Page 14

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.

Capital Corp.

35 Years of Specializing in:

• Salvage

Recycling

Waste

APPLY ONLINE WWW.DADECapital.com

# ALL THIS FOR UNDER \$200K!

### ER • STRONGER • BUILT TO LAST Z CRUSHER

### SPECIFICATIONS

**Opening:** Length Width Height

20' 7'8" 8'1"

40'

13'3"

Overall:

E-Z Crusher A+

Length Weight Height

Hydraulics:

Pressure

Cycle Time

Cylinders

Travel

Shaft

2,400 psi Port Reliefs 2,600 psi 48 Seconds 10" Bore 72" 4" Rod

61,000 lbs.

### SUPPORT

Our technicians will give you a full demonstration of the E-Z CRUSHER, and will train your operators how to use it.

### The E-Z A+ is for the most demanding crushing jobs.

These crushers are solidly built and dependable with a unique hydraulic system that gives you maximum power when you need it the most.

The hydraulic cylinders are uniquely mounted on the bottom deck of the unit. This means the hydraulic cylinders "pull" rather than "push" the crusher deck down. This puts less stress on the machine. At the point of greatest resistance, the cylinder is at its strongest position

Each cylinder can be operated independently, providing more leverage and maneuverability. The pressure is adjustable you have a safety relief valve built into each cylinder, preventing possible damage to the cylinder.

### Simple Design - Easy To Operate

For the past 18 years, R.M. Johnson Company has fine-tuned the design of E-Z CRUSHERS. All the E-Z CRUSHERS use standard parts and components - valves, pumps, and hydraulic parts. All parts (and machine work needs) are available at the R.M. Johnson Company plant. And you buy only the part you need, not the entire assembly.

All models can be portable or stationary.

### **Included Features:**

- John Deere Power Plant
- Remote Automation
- Hydraulic Outriggers
- Air Compressor
- Advanced Hydraulic Oil Filtration



### 800-328-3613 | 320-274-3594 | Fax: 320-274-3859 EZCrusher.com | davev@ezcrusher.com

Annandale, Minnesota R.M. Johnson Co.

## See all equipment at www.DADEAuctions.com!



LABOUNTY MSD228 SHEAR ATTACHMENT Structurally good, no cracks.



SCHUTTE BUFFALO WA SERIES HAMMERMILL Never used! 50HP



**NEW IRONAX ENVIRORACK FLUID DRAIN SYSTEM** The easiest way to prep your cars!



**OEM PICKING CONVEYOR WITH PLATFORMS** Includes platforms, stations and bunkers!



2004 BIVI-TEC 5V670 Good condition. 5/8" holes.



STADLER BALLISTIC SEPARATOR STT-2000-8 Roughly 4,000 hours of use.



**2012 IROCK TC-20 MOBILE IMPACT CRUSHER** Only 1,200 Hours. Great for crushing concrete.



ALLIS CHALMERS 3,500HP MOTOR 698 RPM. 453 Amps. 3 Phase.



2005 FUCHS MHL350 MATERIAL HANDLER Includes a 5 tine grapple.



2010 EXODUS MX447 MATERIAL HANDLER John Deere engine. Solid tires.



**GUIDETTI SINCRO 530 CABLE GRANULATOR** Comes with Pre-Chopper, 30HP. Upgrade your copper today!



**LEROY SOMER PORTABLE 250KW GENERATOR** 60 Htz 3 phase 240/480 Volts John Deere Motor.



**1994 E-Z BALER MODEL 2** Good, low hour, portable metal baler!



ALUMINUM KING AK850 SMELTER 2015. Recently re-lined.



2005 LABOUNTY MSD 2500R SHEAR No leaks! Rotator in good condition.

## Financing available at DADECapital.com

## Sell YOUR equipment with us, call today: 844-333-3030



2011 TAKEUCHI TL240 LOADER Newer tracks. 86 HP.



**ERIEZ MAGNETICS OVERHEAD MAGNET** 36" x 6'. Dual Pole Rotor.



**CAT DIESEL SYNCHRONOUS AC GENERATORS** 1250KW. 2400/4160V. 3 available.



**2006 LIEBHERR R934CEW MATERIAL HANDLER** Tracked material handler, needs some repairs.



OEM STEEL PAN INFEED CONVEYOR 35' long by 48" wide. Piano Hinged.



AMERICAN PULVERIZER 4800 RING MILL SHREDDER This shredding system is in very good condition.



**48" OHIO MAGNET** Aluminum wound with harness and shackles.



2013 EXODUS MX447HDR Cat diesel engine. Solid tires.



**2006 SOUTHERN FABRICATION TROMMEL** All supports, stairs, and catwalks are included.



UNIVERSAL 74 x 104 HAMMERMILL SHREDDER 3500HP with ferrous line!



**2005 DIDION ROTARY DRYER** 96 inch diameter. 50 feet long.



ELETELE 5000 HP LIQUID RHEOSTAT Brand new, never used!



SMC 1000 TON PLATE SHEAR Used to cut railroad car sides and other plate.



ASSET MANAGEMENT FOR SALVAGE, RECYCLING & WASTE

844-333-3030 www.DADEAuctions.com

## METALS

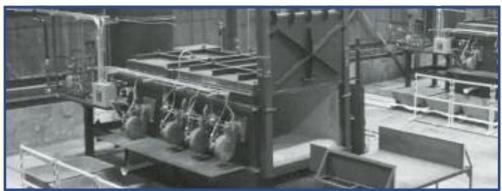
U.S. IMPORTS OF FINISHED STEEL MILL PRODUCTS BY COUNTRY OF ORIGIN (Thousands of Net Tons)									
*Preliminary	AUG 2021*	JUL 2021	<b>2021</b> (annualized)	<b>2020</b> (12 months)	% Change 2021 Annual vs. 2020				
SOUTH KOREA	163	299	2,690	2,015	33.5%				
JAPAN	77	67	1,001	767	30.5%				
GERMANY	80	69	840	725	15.9%				
TURKEY	72	56	835	562	48.5%				
TAIWAN	105	77	808	573	41.1%				
VIETNAM	73	101	611	314	94.4%				
NETHERLANDS	51	51	506	463	9.3%				
BRAZIL	51	28	416	504	-17.4%				
All Others	1,429	1,334	13,607	10,216	33.2%				
TOTAL	2,102	2,081	21,314	16,139	32.1%				

Based on preliminary Census Bureau data, the American Iron and Steel Institute (AISI) reported that the U.S. imported a total of 3,010,000 net tons (NT) of steel in July 2021, including 2,060,000 net tons (NT) of finished steel (up 2.8 percent and 0.5 percent, respectively, vs. June final data). Through the first 7 months of 2021, total and finished steel imports are 17,729,000 and 12,086,000 NT, up 17.4 percent and 20.6 percent, respectively, vs. the same period in 2020.

Key finished steel products with a significant increase in imports in July compared to June are sheets and strip all other metallic coatings (up 48 percent), sheets and strip galvanized hot dipped (up 29 percent), mechanical tubing (up 25 percent), tin plate (up 16 percent) and heavy structural shapes (up 14 percent). Products with a significant year-to-date (YTD) increase vs. the same period in 2020 were hot rolled

sheets (up 76 percent), plates in coils (up 52 percent), cut lengths plates (up 44 percent), sheets and strip all other metallic coatings (up 41 percent), wire rods (up 40 percent), wire drawn (up 22 percent), hot rolled bars (up 17 percent), heavy structural shapes (up 16 percent) and tin plate (up 13 percent).

In July, the largest volumes of finished steel imports from offshore were from South Korea (293,000 NT, up 7 percent from June final), Vietnam (101,000 NT, up 165 percent), Taiwan (77,000 NT, down 8 percent), Germany (70,000 NT, down 27 percent) and Japan (67,000 NT, down 44 percent). For the first seven months of 2021, the largest offshore suppliers were South Korea (1,624,000 NT, up 27 percent vs. the same period in 2020), Japan (590,000 NT, up 22 percent), Turkey (485,000 NT, up 29 percent), Germany (480,000 NT, up 14 percent) and Taiwan (434,000 NT, up 17 percent).



### **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

Steel imports up 17.4 percent NY DEC deploys vessel to enhance artificial reef

Artificial reefs deployment improves existing habitats to increase local marine biodiversity

New York Department of Environmental Conservation (DEC) commissioner Basil Seggos announced that the deployment of the vessel "Big Time" on the Fire Island Reef as part of the state's ongoing efforts to expand New York's network of artificial reefs. This sustained effort is developing a stronger, more diverse marine ecosystem and providing shelter for fish and other marine life off New York's shores.

"Deploying the Big Time on the Fire Island Reef is further proof of ongoing efforts to expand the State's network of artificial reefs, which benefit anglers, divers, and marine life while providing a beneficial use for a wide range of materials like this vessel," said commissioner Seggos. "Now part of the Fire Island Reef, the 55 foot steel Big Time augments local marine habitat and provides a new, big time spot for anglers and divers to visit, increasing opportunities for tourism off the coast of Long Island."

To date, New York State's Artificial Reef Program has deployed a total of 4,700 tons of jetty stone, 1,810 cubic yards of Tappan Zee Bridge materials, three New York Canal Corporation steel barges, Erie Canal lift bridges and miter gates and pontoons, New York State Department of Transportation (DOT) steel bridge girders, trusses and pipe, and the U.S. Army Corps of

Engineers research vessel "M/V Hudson" on Fire Island Reef. All materials were deployed under the guidance of the DEC Reef Program to ensure they are safely cleaned of contaminants prior to joining the reef.

In November 2020, the Artificial Reef Program deployed 16 75' steel rail cars donated by Wells Fargo on Fire Island Reef; and 59 additional rail cars were deployed on 5 other reef sites.

Now part of the Fire Island reef, the vessel Big Time is a 55 foot steel luxury Feadshipcruiser Showboat built in 1956. DEC manages the state's 12 artificial reefs, which include 2 reefs in Long Island Sound, 2 in the Great South Bay, and 9 in the Atlantic Ocean. Since the inaugural deployment in 2018, the Reef Initiative has successfully placed reef materials on all but one of these reef sites.

The benefits of constructing New York's artificial reefs include improving existing habitats to increase local marine biodiversity, stimulating more productive and diverse aquatic ecosystems and promoting environmental sustainability. Concrete and steel surplus bridge materials have proven to be both stable and durable reef-building material while providing shelter and forage opportunities for finfish and crustaceans that inhabit these underwater structures, such as tautog, fluke, black sea bass, scup and lobsters.

R Scra Mai	ap Mei <b>ketV</b>	tals Vato	ch	2					
Commodity		Zone 1	Zone 2	Zone 3	Zone 4	Zone 5			
#1 Bushelings	per gross ton	\$369.00	373.00	360.00	451.00	595.00			
#1 Bundles	per gross ton	369.00	365.00	342.00	430.00	586.00			
Plate and Structural	per gross ton	324.00	337.00	369.00	430.00	470.00			
#1 & 2 Mixed Steel	per gross ton	310.00	314.00	359.00	425.00	435.00			
Shredder Bundles (tin)	per gross ton	170.00	192.00	275.00	289.00	310.00			
Crushed Auto Bodies	per gross ton	170.00	192.00	275.00	289.00	310.00			
Steel Turnings	per gross ton	106.00	106.00	134.00	190.00	294.00			
#1 Copper	per pound	3.70	3.58	4.00	4.00	4.00			
#2 Copper	per pound	3.45	3.35	3.70	3.69	3.68			
Aluminum Cans	per pound	.69	.71	.71	.76	.74			
Auto Radiators	per pound	1.62	1.59	2.09	2.19	2.25			
Aluminum Core Radiators	per pound	.63	.64	.74	.71	.73			
Heater Cores	per pound	1.38	1.45	1.49	1.31	1.98			
Stainless Steel	per pound	.70	.74	.76	.85	.87			
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									

DISCLAIMEN: American Recycler (AR) collects prioring and other information from expenneded buyers, seliers and racilitators of scrap metal transactions throughout the industry. All figures are believed to be reliable and represent approximate prioring based on information obtained by AR (if applicable) prior to publication. Factors such as grades, quality, volumes and other considerations will invariable affect actual transaction prices. Figures shown may not be con-sistent with prioring 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.

## **METALS**

### Elemental Holding acquires Legend Smelting

Legend Smelting and Recycling, one of the U.S. market leaders in strategic metal recycling, has joined the Elemental Holding Group. This is yet another acquisition that strengthens the group's position in the global supply chain of critical raw materials. The total value of Elemental Holding's investments in the U.S. market has reached nearly \$100 million.

Under the transaction, Elemental Holding Group has acquired 100 percent of shares in Legend Smelting and Recycling (LSR). With 40 years' experience and a well established reputation, LSR has a strong position in the U.S. market for sourcing and green production of strategic metals. The company's facilities – located in Ohio, California, Illinois, Indiana and Texas - source raw materials from all across North America, including Mexico.

The acquisition of Legend Smelting and Recycling is yet another investment by Elemental Holding Group in the U.S. strategic metal recycling segment. In December 2019, the group took over a controlling stake in PGM of Texas, which has a large purchasing network with 12 locations across the U.S., as well as a state-ofthe-art processing plant and a chemical laboratory. In May, the takeover of Maryland Core Inc. was finalized.

## Cement, iron ore and steel boost Great Lakes – St. Lawrence Seaway shipping

Lawrence Seaway handled a deluge of cement, iron ore, petcoke and steel in July, supporting the continuing resurgence of manufacturing both in North America and globally.

According to the latest figures, St. Lawrence Seaway cargo volumes from March 22 to July 31 totaled 16.7 million metric tons, up 5 percent over the same time period a year ago. With total grain shipments from Canada and U.S. down (-12 percent) from 2020, the overall totals reflect the diversity of the Great Lakes – Seaway system and the breadth of commodity segments and markets that are served.

Within the dry bulk cargo category, pet coke shipments are up 93 percent. "Pet coke is being exported from the Port of Duluth-Superior and the Port of Toledo to the Netherlands, the United Kingdom and other countries for both steel and cement production," said Bruce Burrows, president and chief executive officer of the Chamber of Marine Commerce.

Meanwhile, year-to-date iron ore shipments through the Seaway hit 3.5 million metric tons through July, an increase of 23 percent from a year ago. And cement shipments have topped 1 million tons, up 25 percent from 2020. "Cement is being transported from manufacturing plants in Ontario and

U.S. Great Lakes ports and the St. Quebec to ports across those provinces, as well as across the border to Cleveland, Buffalo and Toledo. We are even seeing cement imported from overseas to Duluth-Superior," Burrows added.

At the Port of Duluth-Superior, 4.2 million tons of cargo was transported in July, the largest July tonnage total since 2015. For 2021, cargo shipments have topped 15.2 million tons. That represents a 40 percent increase over last year's pace and is 6 percent above the five-season average.

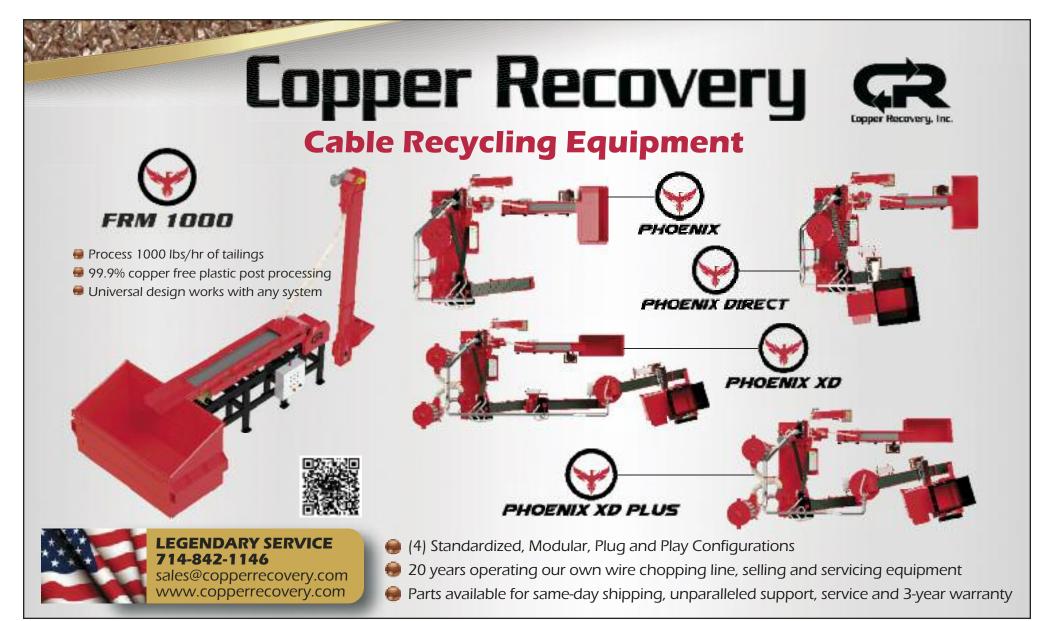
"It's been a good first half of the shipping season and a vigorous rebound from the COVID challenges of 2020," said Deb DeLuca, executive director of the Duluth Seaway Port Authority. "It's been especially good to see iron ore tonnage jumping back above the five-season average, because it's a bellwether of positivity for our port and our region as a whole. Each ore ship carries between \$7 million and \$8 million in ore value, so while they're moving a key raw material of everyday life, they're also moving a sizable amount of commerce for our communities and the North American economy."

For the season, iron ore shipments have topped 9.5 million tons to finish July 12.6 percent above the five-season average and 31 percent above the same period a year ago.

The Port of Toledo continued to roll through the month of July with tonnage surpassing 2020 totals by more than 30 percent. Iron ore tonnage increased by 57 percent to more than 2.4 million tons, primarily feeding the Cleveland Cliffs mill in Middletown, Ohio and the new hot briquetted iron facility at the Ironville marine terminal in Toledo. Coal and dry bulk were up 30 percent over 2020 totals with total cargo shipments for all commodities approaching 5 million tons.

"We are certainly in a better place than we were last July when many of our region's industries were in limbo due to the COVID-19 pandemic," said Joseph Cappel, vice president of business development for the Toledo-Lucas County Port Authority. "I believe we will continue to see strong demand for raw materials throughout 2021 and, if we can couple that with a good fall grain harvest, our tonnage numbers will reflect a productive year for our terminal operators and the shippers and industries they serve."

July was a busy month for the Port of Monroe. Among the traffic was the tug New York with barge Double Skin 509A delivering a cargo of liquid asphalt, while the tug Undaunted with barge Pere Marquette 41 received a load of gypsum for transport to Port Colborne, Ontario.



## Salvaging Millions

by Ron Sturgeon Autosalvageconsultant.com

### Learn to lead, manage and inspire or close

I so often hear theories about why pay for performance doesn't work in the auto recycling business. In my over 25 years of consulting, I've heard more reasons than I can count. In that same 25 years, I can honestly say that I haven't seen any yard do it that didn't get large increases in both sales and profits while paying their staff more. Over the years, I've heard many operators say they just couldn't do it. Sadly, most of them are gone.

I am one of the "old timers", that saw gross margins of 90 percent and costs of goods of 10 percent move to gross margins of 45 percent and costs of goods of 55 percent. Imagine, at one time, for every dollar you spent on cars, you got \$10 dollars in sales. Spend \$20,000, and get \$200,000 in sales. Those are real numbers from 1980. Today, for every \$5,500 in purchases, you will get \$10,000 in sales if you are handling late model cars.

This article is about that compression in costs and profits, and how we have evolved and survived in a business that is far different from what it was in 1980.

Making the change to pay for performance takes guts and perseverance but it is worth it.

### Salespeople

PRO - Sales will go up. When I first introduced sales commissions, many of my salespeople were anxious. Over a 90 day period in 1985, our sales (which had never been above \$100k in a month), went to \$140k the second month and doubled to \$200k in the third. We had seven sales persons, and three of them left (the ones that couldn't sell enough to make their prior salary). In those days, everyone made at least \$700 per week, regardless of what they sold. All made considerably more, and I didn't care! Our percentage of returns did not change after we moved to pay for performance.

CON – Salespeople sell things that benefit them, for prices that make the product move. Well, yes, of course, if you let them. This isn't a pay-for-performance comment; it's a lack of management issue. In the old days, we let the salesperson guess or rely on their intuition to set prices. Today, you have to set prices and hold people accountable.

### Dismantlers

PRO – When we started paying by the car, production increased 80 percent. We designed the plan where our dismantlers made a fair amount per car (much less than our unit cost under our old plan), and they dramatically increased the number of cars they processed. Forty percent of the dismantlers quit, but the ones who stayed zoomed to \$900 per

week, double what they had been making. They loved it.

CON – Quality will suffer. Of course, it did – for a month. Then we did what leaders do. We instituted a penalty if parts were damaged. They hated it, but we explained why quality was important, and we bought another forklift, so our dismantlers didn't have to wait to use one, and we built carts and equipment that made storing, moving and stocking the parts faster and reduced the chance of them getting damaged. The ones that stayed were in love with the new compensation program.

#### **Delivery Drivers**

PRO – When you pay by the stop, you get more stops. This was in the mid-1990s.

CON – Drivers will be rude and damage parts, and not be willing to wait at the customer's shop. Again, we installed measures to prevent these things from happening. We had different rates for different routes because some routes had more traffic or windshield time than others. The staff loved it. If they finished all their deliveries, they got to go home early, and if they had enough parts to work them for the full day, they made a lot more money.

Some have suggested that you must learn how to motivate and reward people without pay for performance, and then you can get the same results. Nothing could be further from the truth, at least in our industry. The shift to performancebased pay is just one more change that has come to our industry, and must be done in addition to proper leadership.

To find and keep great employees, you must:

•Recognize and reward people for doing a great job.

•Offer fair compensation (Pay for performance will pay your people more than the normal rate, allowing you to attract the best employees) •Make your employees feel relevant and appreciated.

•Provide training, resources and tools to be their best.

A deal isn't always a deal - You should be continually fine tuning your programs, especially sales programs, to get the best results. When you couple those changes with good leadership and treat everyone like a king or a queen, you will indeed have a loyal crew. These insights are based on my own experiences implementing pay for performance with a company that grew dramatically year over year and from my consulting experience helping dozens of clients achieve similar results. There simply isn't any other way to overcome the margin loss and price compaction we've endured over the last 40 years.

### 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.

## AUTOMOTIVE KAR to acquire CARWAVE

KAR Auction Services, Inc., d/b/a/ KAR Global has signed a definitive agreement to acquire CARWAVE Holdings LLC subject to certain regulatory approvals and other customary closing conditions. CARWAVE is an online dealer-to-dealer marketplace featuring certified mechanical inspections, buyer guarantees and a 24/7, direct offer trading format with semi-weekly live auctions. Upon closing, the acquisition will build on KAR's consistent growth in the dealer-to-dealer segment, enhance KAR's position in the highly fragmented wholesale used vehicle market, and accelerate the company's overall transformation to a digital marketplace company.

"This acquisition will advance our clear growth strategy in the dealer-todealer segment and accelerate the positive momentum we've sustained over the past several quarters," said Peter Kelly, chief executive officer of KAR Global. "CARWAVE has a strong, active dealer network in California – the country's largest wholesale automotive market, as well as a growing presence in Arizona and Texas. The acquisition will enhance our continued growth in all of these areas while providing each company's unique customers with greater choice through an expanded buyer and seller base. CARWAVE's asset-light, technology-forward business model, with approximately 100,000 vehicles sold over the past 12 months, will enable us to continue driving innovation, achieve immediate profitability across our dealer-to-dealer offerings and enhance our position in the highly competitive dealer-to-dealer space."

CARWAVE was founded in 2009 in California and currently serves a broad network of franchise and independent dealers across Arizona, California, Nevada, Oregon and Texas. The company's online platform enables dealers to conveniently wholesale tradeins and aged frontline units directly from their lot and quickly source new inventory from anywhere.

After the transaction closes, key CARWAVE leadership including cofounders John Lauer and Bill Lauer will remain with the company, and KAR intends to continue operating CAR-WAVE's Escondido, California headquarters.

The purchase price of the acquisition is \$450 million and the transaction is expected to close prior to year-end pending the requisite legal and regulatory approvals.

## EPA fines companies for alleged vehicle 'defeat device' sales

2011 KOMATSU PC210LC-8

**CRAWLER AUTO DISMANTLER** 

The U.S. Environmental Protection Agency (EPA) assessed civil penalties against two companies for installing or selling 'defeat devices' in vehicle engines to render emissions controls inoperative, in violation of the federal Clean Air Act.

"Aftermarket defeat devices are a significant contributor to harmful air pollution," said Diane Huffman, acting director of EPA Region 7's Enforcement and Compliance Assurance Division.

Diesel repair shop Midwest Truck

Products LLC of Cantril, Iowa, will pay a \$75,000 penalty. South Central Diesel Inc. of Holdrege, Nebraska, an industrial machinery and equipment distribution company, will pay a penalty of \$50,954. According to EPA, the companies tampered with vehicle engines and/or sold devices to remove emissions controls for hundreds of customers.

In addition to paying civil penalties, the companies certified that they have stopped disabling vehicle emission controls.

Has 7,662 hours, good undercarriage, new 2 tine/tilting/rotating/engine + wire harness pulling grapple with special new open/ close + up/down hold down clamp for \$172,000 FOB Baltimore.



### WASTE

## Analysis of organic waste diversion efforts in Canada shows need for improvement

As Canadian provinces and territories set more aggressive organics diversion and waste reduction related goals, additional organics management infrastructure will be needed to achieve those goals.

That's one of the conclusions reached in a recent analysis conducted by the Environmental Research and Education Foundation of Canada (EREF-Canada), a science based research organization that focuses on solid waste.

The diversion of organic municipal waste materials has been a growing focus throughout Canada, primarily at the province and local levels as policies and collection programs have become widespread. But the collection and access to reliable data has been inconsistent. The results from the EREF-Canada study fill in a number of informational gaps.

Researchers looked at all 10 provinces and 3 territories to analyze each in order to (1) get a clear understanding of the organic waste policies and approval/permitting regimes in each one, (2) the organic waste diversion program availability across the country, and (3) the number of operational organic waste processing facilities, along with their capacities and tonnes processed.

For the purposes of the study, organic waste was defined as food waste that is uneaten and discarded, as well as inedible wastes such as scraps, agricultural waste (e.g., manure), biosolids (organic material recycled from sewage), and leaf and yard waste (including grass clippings, yard and garden debris). The report also focused on residential, industrial, commercial and institutional organic waste diversion. It did not take into consideration organic waste that might be applied directly to land, backyard composting, or waste stabilization methods such as lime stabilization, fermentation, and pasteurization.

The analysis found that most provinces (with the exception of the territories and more remote areas) have adequate processing capacity to manage more basic degradable materials like leaf and yard waste. For example, collectively there is enough processing capacity for 2.66 million of these basic degradable materials at static pile and windrow facilities (facilities with an open-air process that places material in long piles that are rotated regularly) in Canada.

However, most provinces do not have sufficient processing capacity to address larger volume and more complicated materials like source-separated organics. Based on the 3.08 million tonnes of available processing capacity for in-vessel and anaerobic digestion facilities, they are at capacity or have a small amount of buffer capacity.

Compost facilities were predominately responsible for managing the organic waste being generated. Of the 4.83 million tonnes of organic waste processed in 2019, 72 percent of it was processed by compost facilities. EREF-Canada calculated that on average compost facilities processed 10,611 tonnes of organic waste. However, this reflects a wide range of facility sizes and processing capabilities with facilities processing from 50 tonnes to 150,000 tonnes. The anaerobic digestion facilities (facilities that degrade organic waste without oxygen) were responsible for processing 1.35 million tonnes of organic waste.

Collectively, the 387 facilities can process as much as 5.74 million tonnes (excluding Quebec) of organic waste annually. The total processing capacity reflects processing capacity for both easily degradable organic waste like leaf and yard waste as well as the capacity to degrade materials that require more intensive infrastructure like source separated organics.

According to EREF-Canada's analysis, there is a shortfall of about 1.1 million tonnes of total capacity when compared to the quantity of food and yard and garden waste generated annually. This shortfall in capacity becomes even more pronounced considering that the majority of this waste is more complex food waste which can require more intensive infrastructure like in-vessel and anaerobic digestion systems. EREF-Canada found that there is 3.08 million tonnes of capacity for in-vessel compost and anaerobic digestion facilities, resulting in a potential 3.72 million tonne shortfall in capacity for processing more complex organic wastes

The 128-page report also highlights how the organic waste sector in Canada has grown since the early 1990s when the first curbside and depot municipal leaf and yard waste programs were implemented. EREF-Canada's research identified that as of 2019 there were a total of 328 compost and 59 anaerobic digestion facilities active in Canada.

Researchers also found that there is widespread implementation of organic

> **INDUSTRY NEWS** IS ON YOUR MIND.

TAKE US ALONG.

877-777-0043



waste management programs at the local levels. Ninety-one percent of all Canadians live in an area that has a residential organic waste management program. Furthermore, curbside programs are wildly available, with 83 percent of the population living in an area with access to curbside leaf and yard waste programs and 71 percent with access to curbside source-separate organic programs.

As a result of the analysis, researchers say, in general, the country is highly motivated to increase the amount of organic waste diverted from disposal and reduce the amount of organic waste generated. Diversion from disposal was the most common goal used across the country with 10 provinces/territories citing diversion as a goal. Reduction of waste was the second most common goal with seven provinces/territories citing this as a goal.

The specifics of the goals for each province vary. For example, while the overall Canadian government goal is to reduce organic waste by 30 percent by 2030 (or 490 kg per person), the Ontario government is shooting for a 50 to 70 percent reduction by 2023 or 2025, depending on the sector where the goal is applied. Similarly, Nova Scotia is targeting a goal of 50 percent waste diversion, as well as a target for waste disposal of no more than 300 kg/person/per year. Quebec and British Columbia have been more aggressive goals. Ouebec wants to recycle or recover 70 percent of all organic matter by 2030 and reduce the quantity of waste sent for disposal to 525 kg per capita. Meanwhile, British Columbia has a target of diverting 95 percent of organic waste for agricultural, industrial, and municipal waste.

EREF-Canada's analysis suggests that as provinces and territories set more aggressive organics diversion and waste reduction related goals, additional organics management infrastructure will be needed. The country has the capacity necessary to collect additional materials, as many residents already have some access to an organic waste collection program. However, researchers say it is also necessary to ensure that these programs are routinely and properly used by residents. Many provinces and territories have already developed policies and programs that are driving progress towards their organic waste goals. Their continued progress will require supporting existing policies and programs, while also supporting improved access and availability of organics management infrastructure.



### Continued from Page 6

60 percent back until 2022. After 2022, the incentive drops to 0 percent.

Though converting national energy reliance away from emission-producing sources can preserve the atmosphere, it also creates challenges in the recycling industry. Solar panels last up to 30 years on average. Similarly, wind turbines function efficiently for nearly 20 years.

After the devices meet their expiration dates, they create waste due to inefficient recycling management programs. In landfills, solar panels release toxic elements that pollute local soil and water sources. Photovoltaic panels contain lead that leaches into the environment as the exterior degrades.

Inefficient recycling methods also impact the wind power sector. Wind turbine blades are nonrecyclable, creating environmental challenges when they reach their expiration dates. Turbine blades have their own landfills, where professionals bury them in shallow graves. With wind power purchases increasing, resulting from the PTC extension, researchers predict a burial location shortage.

Waste management companies will bury nearly 8,000 turbine blades in the coming years, which can leach into the soil. They also restrict available land for agricultural production and other uses.

Environmental degradation will increase if recycling companies fail to create efficient processing techniques for wind turbines and solar panels. Expanding renewable energy tax credits can benefit ecological conservation efforts when implemented effectively.

### ScrapRight Software adds new personnel

ScrapRight Software made key personnel and tech moves in preparation for its growth projection.

On pace to eclipse 120 new locations this year alone, ScrapRight's leadership has been in overdrive, enhancing its hosting infrastructure, improving code and adjusting personnel positions to ensure that the company is well equipped to continue its growth and ability to support the massive influx of new customers.

Key upgrades on the technical side include the decentralization and optimization of ScrapRight's hosting solutions along with the plug and play capabilities of hardware components via ongoing advances in their IoT agents.

Randy Davis is the new director of IT and support, leading a team of talented support techs. With nearly a decade of ScrapRight tech and customer support experience and a heavy customer centric approach, Davis envisions his support center outpacing all of ScrapRight's short term and long term projections, offering several support channels. Along with Davis, customer service specialist Kathy Rosario has also bolstered the team. Having served in the medical and tech industries for both the U.S. and Latin America, she is providing bilingual support.

I got carded at a liquor store, and my Blockbuster card accidentally fell out. The cashier said never mind.

### **BUSINESS BRIEFS**

### Hyundai Heavy Industries Holdings acquires Doosan

The acquisition and official completion of the Doosan Infracore sale to Hyundai Heavy Industrial Holdings Co. (HHIH) happened in August 2021.

Doosan Infracore will become a subsidiary of the newly created Hyundai Genuine (HG) group alongside Hyundai Construction Equipment (HCE), as two independent construction equipment companies under HHIH. HG will act as the intermediary company of HHIH Group's construction equipment businesses, leading both DI and HCE to maximize the company's efforts and focus on the construction equipment industry. The two brands will combine as a global top player, much closer to achieving the goal of becoming a global top 5 player.

The plan is to manage overlapping investments and invest heavily in areas like future technologies and innovation. Doosan Infracore will work diligently to commercialize Concept-X and develop products such as electric excavators, battery packs, hybrid fuel cells and other next-generation products. By focusing on each company's areas of strength, HG will be able to advance the development of these types of products to gain a competitive edge.

Independently, the two companies will grow together, complement each other, even compete in good faith in all areas, including technology, production, purchasing, sales, and quality. This will enable the business to expand and associate with other companies operated by the whole HHI group.

### National Auto Body adds Scott Samply to board

■ The National Auto Body Council<sup>®</sup> (NABC) has named a new member to the National Auto Body Council board, filling an open position.

Scott Sampley is vice president of the replacement and leisure division for Enterprise Holdings Inc. In this role, Sampley oversees sales operations for the company's most strategic replacement and leisure partners. Enterprise Holdings is the largest car rental company in the world, as measured by revenue and fleet. In addition, Enterprise Holdings is the most comprehensive service provider and only investmentgrade company in the U.S. car rental industry.

After graduating with a bachelor's degree in marketing from the University of Southern California in 1991, Sampley joined Enterprise as a management trainee in Anaheim, California. In 2005, Sampley was promoted to regional vice president, where he oversaw operations in San Gabriel Valley and San Fernando Valley. He was promoted again in 2012 to group vice president of Southern California home-city operations, where he was responsible for sales and strategic growth. Sampley was promoted to his current role in January 2019.

Sampley has supported several committees and initiatives of the NABC, including the Fundraising Committee and the NABC Pars for Cars Golf Fundraisers. In addition, he has been active in United Way, Boys and Girls Clubs and Knights of Columbus charity work.



THE ROUTE TO USTAINABL STRENGTH

November 1-4, 2021 |WASTECON.org



WE BUY AND SELL USED RECYCLING EQUIPMENT HOVDE RECYCLING EQUIPMENT 480-699-2460 TEXT 320-760-5688 scrapequip.com steven@scrapequip.com

### Software

**U-PULL IT SOFTWARE:** Get more from your U-Pull It yard and simplify searches! Learn more at our 3rd Annual CRUSH<sup>™</sup> Users Meeting, October 14-16, 2021, Westgate Park City Resort and Spa in Park City, Utah. Until then, see product demos at www.s3softwaresolutions.com. Call today! 801-355-3388

### **Tire Recycling**

**TIRE SIDEWALL CUTTERS,** used: passenger electric \$2,250, semi truck electric \$5,000, semi truck diesel \$12,500. Located in Charlotte, North Carolina. Call Rob for more information at 954-295-5423

## BRIEFS

### Timken acquires Intelligent Machine Solutions

■ The Timken Company, an industrial leader in engineered bearings and power transmission products, has acquired Intelligent Machine Solutions (iMS), a manufacturer of industrial robotics and automation solutions. The addition of iMS expands and complements Timken's Rollon<sup>®</sup> linear motion product range with larger and heavy-duty applications, such as seventh-axis robotic transfer units (RTUs) and gantry systems.

iMS, which was founded in 2008, is based in Norton Shores, Michigan. The company, which has approximately 20 employees, designs and manufactures floor-mounted, overhead, rotary and extreme seventh-axis RTUs and gantry systems used by manufacturers across industries to automate certain production processes. iMS will increase Rollon's leadership in robotics and automation and in new and growing end-market sectors, such as packaging and marine, as well as aerospace and automotive production plants. Furthermore, the addition of iMS enhances Rollon's operational footprint in the United States, a key strategic objective for the business.

iMS revenues for the 12 months ended June 30, 2021 were approximately \$6 million. Other terms of the transaction were not disclosed.

## Weiss becomes new COO of Redwave Solutions US

After an intensive four and a half years in the U.S., Stefan Steiner will take on new responsibilities at the Austrian headquarters of Redwave Solutions.

Effective immediately, Martin Weiss became the chief operating officer for the U.S. subsidiary. Weiss will be responsible for administration, sales and marketing and maintenance staff.

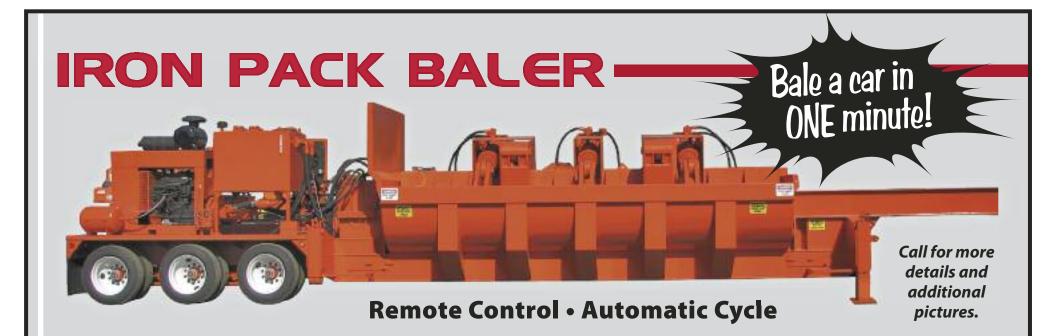
Weiss will continue to strengthen the subsidiary in the U.S. and focus on sustainable development of Redwave Solutions in the recycling, waste treatment and mining industries.

## ALLU Group names dealer for Southwestern U.S.

■ ALLU Group Inc. announced Los Angeles/Placentia, California based Bejac Corporation as its newest dealer. Covering California, Nevada, Arizona, and Utah, Bejac represents the heavy range of ALLU D Series Transformer and ALLU Crusher material processing attachments within these states. Bejac provides sales and rental of ALLU's unique attachments, as well as complete aftermarket service and spare parts. The company has eight branch locations in California, two locations in Nevada, one location in Arizona, and one in Utah.

By creating this partnership with Bejac as its Western distributor, ALLU reinforces its commitment to provide the greatest level of customer focus in the industry – combining expertise with the benefits of a global company.





**TRONTATION** 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!

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

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





Toll-free 877-247-6629 Fax 478-252-9030 www.ironax.com | ironax@ironax.com You Tube View the Iron Ax YouTube Channel to see the Iron Pack Baler In Action Today!

#### FOCUS on AUTOMOTIVE SECTION B SECTION B

## A look at the post-consumer plastics markets

### by MAURA KELLER

mkeller@americanrecycler.com

Walmart announced that it increased the percentage of post-consumer resin (PCR) used in its private label packaging from about 7 percent in 2019 to 9 percent in 2020. They have established a new goal of 20 percent PCR being used in its packaging in North America by 2025. Last year, Walmart used about 2.87 billion pounds of plastic in its private label packaging.

Walmart is not alone in shifting its focus on post-consumer plastic sustainability and recycling initiatives. As consumers' attention continues to focus on the most sustainable handling of plastics, companies in a variety of industries are modifying their plastic recycling initiatives.

Houston-based Rick Perez is chief executive officer of Avangard Innovative, a recycler in the Americas, offering full service waste management and recycling optimization solutions including post-consumer resin manufacturing facilities. Perez said the demand for post-consumer recycled plastic continues to grow as consumer, investor and government environmental pressure continues to rise.

"These pressures come from the endorsement and preference of consumers for environmentally conscious brands and products, investors pegging higher enterprise financial value for those companies with clear sustainability goals and high environmental, social, and governance (ESG) scorecards, and increased government regulation across the board," Perez said.

Don Gambelin, head of business developed at EverestLabs, has worked in recycling for years and has extensive experience inside materials recovery facilities (MRFs) –including experience at Republic Services, Allied Waste and Norcal Waste Systems.

Gambelin stressed that the postconsumer plastic recycling industry is in need of help simply because people do not have good information about



As far as the company's packaging goals are concerned, Walmart is shooting for 20 percent postconsumer resin usage in North America and 17 percent globally by 2025.

what is occurring in recycling plants related to plastics.

"There is a glaring blind spot in the system from the time a consumer scans a container until it gets to a materials recovery facility," Gambelin said. "We are trying to hold producers responsible with extended producer responsibility legislation like that just instituted in Maine – but in reality, business and industry can't truly be responsible without data to guide them."

Called Extender Producer Responsibility, the law recently passed in Maine charges corporations that do not use sustainable packaging materials. This forces companies that use less than eco-friendly packaging materials, such as plastics, to pay for each ton of those materials that they send into the state. That money then gets passed along to cities and towns to pay to recycle those materials.

### Pricing Trends

According to Sebastian Sajoux, chief executive officer of Arqlite, a company that takes plastic waste, stops it from going into landfills, and turns plastic into smart gravel, it's difficult to generalize the status of the post-consumer plastic recycling market as it varies from city to city.

"It's far from becoming a real solution due to the inefficient design," Sajoux said. "Just imagine people mixing all recyclables at home and then sending that mix to a \$150M facility to separate it back with a 50 to 70 percent efficiency. That makes no sense and is a waste of time and money."

NOVEMBER 2021

The plastics Arqlite takes to process are free, as they are of no value once mixed and would otherwise be sent to landfills.

"However, companies in the standard recycling industry suffer from frequent price variations, especially because there's no incentive or subsidy from the state to maintain standardized pricing," Arqlite said.

Indeed, the pricing of post-consumer plastic waste has fluctuated over the last few years. As Perez noted, there will always be some cost difference from prime, but as demand in quality improves, it will follow the prime resin pricing trend.

Several factors have impacted this including the COVID pandemic, weather events, supply chain interruptions, and logistics.

"Historically, post-consumer resin has priced higher than prime resin due to the costs associated with the circular economy operation, from collecting single-use plastics, to transporting them to a recycling facility, to the capital investments required for the 'transformation' infrastructure - from used plastic to reusable pellets, for example," Perez said. "However, due to the current high primer resin prices, postconsumer resin is now much more attractive in the market. As supply and demand continues to improve, postconsumer resin will follow prime resin pricing trends."

### **Consumers Are In Control**

Experts agree that consumers are in the driver's seat in terms of knowing that what was put in a recycle bin is actually being recycled.

"According to the EPA, from 2017, the latest figures available, Americans generated more than 267 million tons of solid waste. Only 94.2 million tons of that waste was either recycled or composted," Gambelin said. "The consumer demand for responsibility will grow, which will See PLASTICS, Page B6



## Greensboro partnership to expand foam collection

Four non-profit organizations in Greensboro, North Carolina, Tiny House Community Development (THCD), Greensboro Beautiful, Inc., Emerging Ecology, and Environmental Stewardship Greensboro, collectively known as the Foam Coalition of Nonprofits, continue to work toward expanding their foam polystyrene recovery efforts across central North Carolina.

In 2020, the organization established a local drop-off site near downtown Greensboro to recycle more polystyrene (PS) foam marked with a number six. This includes cups, clamshell packaging, egg cartons and packaging foam that comes with electronics or furniture.

The Foam Coalition of Nonprofits continues to gain momentum and support throughout the local community and is now working to expand PS foam recycling drop-off locations. The organization was awarded a \$28,000 grant from the Foam Recycling Coalition (FRC) in 2020 to assist in expanding access to foam recycling and implementing collection in additional areas of central North Carolina.

"These Greensboro non-profits are working hard to serve their communities by providing recycling services for foam polystyrene packaging that would otherwise be destined for the landfill," said Natha Dempsey, president of the Foodservice Packaging Institute, which oversees FRC. Since establishing the foam recycling drop-off location, the organization has collected over 15,000 lbs. of foam, provided paid workforce development jobs to homeless and formerly homeless individuals and helped reduce the waste that goes to the landfill in the area.

With this new grant, the organization will expand collection locations to include additional cities and local universities in providing access for PS foam recycling. This will also provide the opportunity to expand its workforce development training program as well.

FRC funding helped the Foam Coalition of Nonprofits set up and operate the first drop off site and expand its capabilities, which currently collects all types of foam polystyrene packaging materials including foodservice containers and trays from residents, hospitals, colleges, and businesses within Guilford County.

The grant is made possible through contributions to FRC, which focuses exclusively on increased recycling of post-consumer foam polystyrene. Its members include Americas Styrenics; Cascades Canada ULC; Chick-fil-A; CKF Inc.; Dart Container Corp.; Dolco Packaging; Dyne-A-Pak; Genpak; INEOS Styrolution America LLC.; Pactiv Foodservice/Food Packaging; and Republic Plastics.



800.909.1147

## NY DEC proposes polystyrene ban for packaging and fill

New York State Department of Environmental Conservation (DEC) Commissioner Basil Seggos announced proposed regulations to implement a ban on expanded polystyrene foam containers and loose fill packaging, commonly referred to as packing peanuts, that goes into effect January 1, 2022. The ban builds on New York's efforts to prevent litter and waste reduction through measures such as the ban on plastic carryout bags, the bottle bill, and food scrap recycling and food waste prevention efforts. New York is among the first states to ban polystyrene packaging and fill. DEC is accepting comments until November 22, 2021.

"New York's proposed regulations to implement a ban on polystyrene foam containers and packing material will reduce the waste headed to landfills and combustors," Seggos said. "The ban creates enormous long term benefits for the environment by helping to reduce litter, clean up the recycling stream, prevent macro/microplastic pollution, and bolster the ongoing transition to more sustainable alternatives. I encourage New Yorkers to review the draft regulations and provide comments as we work to remove these single-use plastic products from our waste stream to protect the environment, both now and into the future."

The law and proposed regulations prohibit any person engaged in the business of selling or distributing prepared food or beverages for on- or offpremises consumption from selling, offering for sale, or distributing disposable food service containers that contain expanded polystyrene foam in New York. In addition, no manufacturer or store will be allowed to sell, offer for sale, or distribute polystyrene loose fill packaging in the state.

Examples of covered food service providers required to comply with the ban include:

•Food service establishments, caterers, temporary food service establishments, mobile food service establishments, and pushcarts as defined in the New York State Sanitary Code; •Retail food stores, as defined in Article 28 of the Agriculture and Markets Law, which include any establishment where food and food products are offered to the consumer and intended for off-premises consumption;

•Delis, grocery stores, restaurants, cafeterias, and coffee shops;

•Hospitals, adult care facilities, and nursing homes; and

•Elementary and secondary schools, colleges, and universities.

Disposable food service containers made of expanded polystyrene that will be banned under the law and proposed regulations include bowls, cartons, hinged "clamshell" containers, cups, lids, plates, trays, or any other product designed or used to temporarily store or transport prepared foods or beverages, including containers generally recognized as designed for single use. Under the law, certain facilities and covered food service providers may request a financial hardship waiver, which may apply to one or more disposable food service containers. The proposed regulations detail the application process and approval criteria.

The law and proposed regulations include exemptions for raw meat, pork, seafood, poultry, or fish sold for the purpose of cooking or preparing offsite by the customer and prepackaged food filled or sealed prior to receipt at a covered food service provider. The law does not apply in New York City because the city has a local polystyrene ban in place and meets the law's population threshold. Other local laws enacting a polystyrene ban are preempted by the state law, except any county law enacting a polystyrene ban providing environmental protection equal to or greater than the state law or regulations will not be preempted if the county files a written declaration with DEC of its intent to administer and enforce its local law.

The full text of the draft regulations, including express terms, hearing information, and related information pertaining to the proposed rulemaking, is available on NY DEC's website.

BUYER'S GUIDE

## 2022 BUYER'S GUIDE STANDARD LISTING FREE

A standard listing in American Recycler's 2022 Buyer's Guide includes your company name, address, and website address.

## UPGRADE OPTIONS

Basic listing plus logo and/or company description.

CALL NOW TO GET ON THE LIST OR VISIT AMERICANRECYCLER.COM TO BUY YOUR UPGRADES!

# University of Missouri works with Dow and the Missouri DOT to test the use of plastic waste in pavement

Each year in the U.S., millions of tons of plastic waste are discarded and not recycled, leading to serious environmental problems. In an effort to help keep this waste from ending up in the environment, engineers at the University of Missouri are partnering with Dow and the Missouri Department of Transportation (MoDOT) to test mixing plastic waste into the asphalt pavement mixtures for possible use on American roadways and bridges.

Asphalt pavement mixtures are typically created from a mixture of asphalt and other materials called "aggregates," such as stone, sand or gravel, said Bill Buttlar, the Glen Barton chair in flexible pavements in the Department of Civil and Environmental Engineering. He said the chemical makeup of plastic helps it become a good product for road pavement mixtures.

"Plastic was developed to be durable and has a shelf life of hundreds of years," Buttlar said. "Asphalt and plastics are also chemically similar because they both come from crude oil, so they can be mixed together. They aren't perfectly compatible, but it's close enough that engineers and chemists can work together to find a workable solution."

Inside the Mizzou Asphalt Pavement and Innovation Lab, or MAPIL, located in the MU College of Engineering, engineers and students are determining how to incorporate various types of single-use, polyethylenebased plastic waste into asphalt pavement, including drinking bottles, grocery bags and drinking straws. Buttlar, the lab's director, said the idea for using plastic waste in pavement developed through a series of conversations he had with Mizzou alumnus Jim Fitterling, the chairman and chief executive officer of Dow, a \$39 billion global materials science company, following a tour Fitterling had of the MAPIL lab during a recent visit to the college.

"I joined Dow more than 35 years ago, two weeks after graduating from Mizzou," Fitterling said. "Both this company and this university have been integral parts of my life. So, I always appreciate the opportunity to bring the two together. But, even more than that, through this project, Mizzou and Dow are partnering on an innovative solution that will better our planet. This project fits perfectly at the intersection between both Dow and the University of Missouri's purpose and mission. At Dow, we're working to tackle some of the toughest challenges facing our world, like ending plastic waste. These challenges will require great problem solvers and strong partnerships. I know we're getting both when we work with the University of Missouri College of Engineering."

MoDOT is excited to begin seeing the use of recycled plastic in asphalt



that are being added to the pavement mixture. The lab is located inside the MU College of Engineering.

pavements, said Dave Ahlvers, state construction and materials engineer.

"Recycled material is an important element of delivering a durable and economic product," Ahlvers said. "We currently utilize recycled asphalt, pavement, recycled asphalt shingles and ground tire rubber in our mixtures. Expanding to utilize plastic reduces the amount of virgin material needed, which is a winning situation for the environment and overall cost."

MU's engineers and students get to test their laboratory-developed mixture in a real-world environment when it is applied as a pavement overlay, or a new layer of asphalt, to a deteriorating section of road surface, along a stretch of Stadium Boulevard in Columbia from College Ave. to U.S. Highway 63 where traffic averages approximately 36,000 vehicles a day. Buttlar said to confirm the results, the team will need to observe the nearly two-mile test area for at least one year, including one summer and one winter season. He said a pavement overlay should last for at least a decade, or about 12 to 15 years, before needing to be replaced, and recycled materials such as plastic and tire rubber can also extend pavement life by increasing both its strength and toughness. Buttlar also plans to conduct long-term monitoring of Stadium Boulevard and future demonstration projects in partnership with MoDOT.

The test sections on Stadium Boulevard will also include a control section, or area with a current pavement mixture commonly used and approved by MoDOT, as well as an additional test section using a pavement mixture including a chemically modified, recycled ground scrap tire rubber. The ground tire rubber test is being conducted in collaboration with an additional project partner, Asphalt Plus, LLC. This product extends road life, reduces road construction costs, and could prevent the disposal of millions of scrap tires in the U.S. and Europe.

Meeting the right specifications Before a payement mixture can be

Before a pavement mixture can be

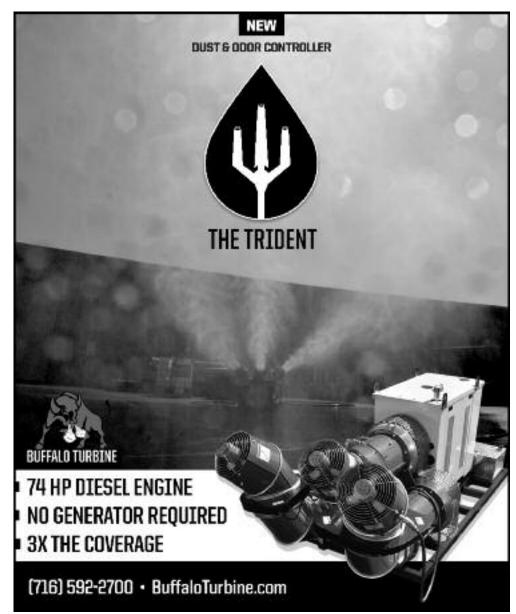
applied on a commercial scale to be used by contractors when bidding on road projects, it must first have a certain specification that is approved by MoDOT, or another state's transportation regulatory authority. This process begins in the development stage, when labs such as MAPIL assist with creating a product, and can also continue once a field demonstration project has been completed and contractors can conduct further innovation in their own laboratories.

"The specifications are a set of requirements and parameters that are placed in the contract so that a consistent product can be produced and bid on by all contractors," Ahlvers said. "Innovation allows MoDOT to use our funding most efficiently, and we are hopeful that we can make a difference in reducing plastics entering landfills."

### Keeping the environment in mind

One key aspect of this project is making sure the final product doesn't cause a harmful impact to the environment. So Buttlar is collaborating with one of his colleagues in the College of Engineering, Baolin Deng, to study the project's environmental impact. Deng, a professor in the Department of Civil and Environmental Engineering, has already assisted Buttlar's team with electron microscopy testing and water quality testing, and Buttlar said so far, the results indicate that the environmental impact should be negligible.

"Everyone has a sense that this is a really big deal," Buttlar said. "On the one hand, we appreciate plastics and we benefit from them, yet we are swimming in plastic waste right now. This is clearly a critical, global challenge where there are not a lot of viable solutions currently available. In this case, the pavement will have to be durable, economical and truly sustainable. We're now focused on studying the life cycle of plastic waste in pavement to make sure that it is a cleaner, more sustainable approach, and I think everyone senses that this is a possible solution."



# EQUIPMENT SPOTLIGHT

### by MARY M. THORNTON

#### maryt@americanrecycler.com

Baler types differ, relative to the processing of paper or plastic. The volume and rate of material to be processed is also a factor that should be considered, in choosing the most effective machine for baling.

"Nonferrous, solid waste and single-stream facilities can rely on International Baler's two-ram baler for solid, heavy-duty construction and quick changeover of material. Customers can also expect the most standard features of any two-ram, setting International Baler above the rest of the market," stated Sean Usoff, sales and marketing director.

"Document destruction facilities and distribution centers benefit from our open-end auto-tie, which offers high volume through-put, heavy bale weights, and is available in numerous standard configurations, including a space saving vertical-tie option. Our flagship model, the ATX, is the first roller-platen auto-tie built in the U.S., capable of processing up to 45 tons of OCC per hour. Every baler is engineered for reliability, safety and ease of operation. International Baler is also dedicated to providing outstanding customer service before, during and after the sale. Thanks to our experienced sales and service departments, you can expect knowledgeable support for the long life of your equipment," Usoff concluded.

### Additionally,

International Baler provides vertical balers, closed-door horizontals (including full-ejects), and specialty machines for textiles, dust, mote, foam and more. A leading manufacturer of industrial recycling equipment since 1946, the company offers over 200 different models to meet the needs of almost any application.

After nearly 60

years of building horizontal balers, Maren customers "rely on us more than ever for variety, flexibility and adaptability of our equipment. One size doesn't fit all and recyclers, DCs and manufacturers have grown to depend on us for complete baling systems that fit their needs, not the other way around. You may have heard the quote 'to one who has only a hammer, the whole world looks like a nail'...well, for those who discover after installation that their new system doesn't accommodate their needs, that hammer hurts," Todd Wondrow, president, stated.

He then noted how with few exceptions, closed door full eject balers are the "Swiss army knife of balers. They can process just about

anything and can turn on a dime from material to material without cross contamination of bales or wasted labor. Their only drawbacks are they require manual tie off and they are only effective to about three tons an hour or possibly much less, depending on material. For higher throughputs, the open end auto tie and two ram balers can take over. Both are automatic and offer higher performance but the following should also be considered when choosing the right machine for your operation: Can it process all loading schemes." grades of paper including



Maren Engineering

shred, magazines and coated high grade? Does the plastic to be baled include film, reinforced super sacks, rigid plastics, perforated or non-perforated bottles? Failure to consider these factors could leave you with a piece of equipment, but not an asset."

As qualified labor becomes more difficult to secure, material processing must be streamlined to be profitable. To help with this, Maren developed the ProPak series of balers, which range from 20hp closed door full ejects to 225hp open end auto ties and two rams. "Our ProPak line utilizes state of the art hydraulics, electronics and construction features that earn genuine appreciation from owners, operators and maintenance staff. These state of the art balers are designed to process more tonnage and make heavier bale densities, all while consuming less electricity than comparable sized machines. That's a big accomplishment and we'll not only show you how that is possible, we'll share testimonials of customers who've experienced it," Wondrow said.

He also advised, "Plan for future growth, but unless capital is no object, don't plan so aggressively that your R.O.I is upside down and so prevents or delays requisite process improvements. Waste and inefficiency cost are never recovered. We can show you how to process a target volume, including labor hours, wire cost, electrical consumption and even truck

Van Dyk Recycling Solutions slab stock, secure document offers high-speed, high-capacity,

### MANUFACTURERS

**Balers** 

**American Baler** Misty Boyd 800-843-7512 www.americanbaler.com

Bace, Inc. Greg Leon 877-506-2223 www.bacecorp.com

**Balemaster USA Josh Rykard** 219-663-4525 www.balemaster.com

**Baletech Recycling Equipment** JM Hydraulics, Inc. **Bianca Emard** 818-771-0534 www.baletech.com

**C&M Baling Systems, Inc.** John Gibbs 800-225-3796 www.baling.com

Cram-A-Lot JV Manufacturing, Inc. Stan Acuff 800-678-7320 www.cram-a-lot.com

**Engineered Recycling Systems** Jeff Wair 630-346-8663 www.engineeredrecycling.com

Harmony Enterprises, Inc. **Nick Roberts** 507-886-6666 www.harmony1.com

> Harris Jeff Ham 800-468-5657 www.harrisequip.com

**Imabe of America Cesar Benitez** 786-773-2620 www.imabeus.com

**International Baler** Sean Usoff 800-231-9286 www.intl-baler.com

**Marathon Equipment** Jim Loeffler 814-450-4981 www.marathonequipment.com

See BALERS, Page B5



International Baler

October 2021, Page B5

for over 40 years!

## Balers Continued from Page B4

fully-automatic balers for recyclers and waste processors operating anywhere between 15 to 50 tons of material per hour. Mark Neitzey, sales director, explained, "Our balers handle all types of paper, cardboard, aluminum, and plastics and seamlessly switch between grades for the ultimate flexibility in baling. Models offered, the HBC-120, HBC-140, and HBC-180, are strictly no-shear and designed



Van Dyk Recycling Solutions

with a pre-press compression flap that condenses material into square bales, evenly dense on all sides. This makes them easier to stack and store. Material preloads on top of the flap while the flap is in motion as the baler continuously

maintains high speeds. Eliminating the act of shearing drastically reduces wear and tear on the machine and reduces maintenance costs.

"Our customers are consistently impressed with the performance and reliability of our balers. 'It just runs and runs,' and 'it gives us a sense of confidence every day' are phrases we often hear. We like to say the baler is the heart of any recycling operation, and ours keep hundreds of operations pumping, sometimes for decades! Our balers are known to last for ten, even twenty years with no signs of slowing down. Every baler is backed by our unmatched customer support plan, which includes exclusive access to our extensive parts warehouse and 24/7 technical assistance via telephone, at no extra charge. We keep all spare parts in stock at our Connecticut warehouse, so they are ready to ship the moment you need them. We also offer a new option for remote serviceability: Van Dyk Vision. Using augmented reality technology, our technicians can live-stream footage of your plant and give directions in real time. It's just like having an expert in your plant in an instant."

MANUFACTURERS Continued Maren Engineering Todd Wondrow 708-333-6250

www.marenengineering.com PTR Baler and Compactor Co. Eric Reithmiller

800-523-3654 www.ptrco.com

Bilt-Rite Disposal Equipment Ltd. Max Chiera 905-857-0330 www.bilt-riteequipment.com

Sierra International Machinery, LLC Jose Pereyra 800-343-8503 www.sierraintl.com

Van Dyk Recycling Solutions Mark Neitzey 203-967-1100 www.vdrs.com

Waste Processing Equipment Mike Smith 800-225-6458 www.maspakbalers.com



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.

### **UPCOMING TOPICS**

DEC Eddy Current Separators

JAN Containers

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

FEB Metal Shredders

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.





## FOUR

## 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 shreddder '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!





## Polypropylene Recycling Coalition awards grants to 13 recycling facilities

Recycling Partnership The announced a third round of grant funding through its Polypropylene Recycling Coalition, distributing an additional \$1.8 million in catalytic grants to advance polypropylene recycling and reduce plastic waste in the U.S. Launched just one year ago, the Coalition has awarded grants that will improve curbside polypropylene recycling access for nearly 6 percent of all U.S. households. These grants will positively impact nearly 15 million Americans through grants to 13 facilities totaling \$4.2 million to date. The Coalition is a cross-industry effort supported by steering committee members Keurig Dr Pepper, Braskem, NextGen Consortium, and the Walmart Foundation, along with other members of the polypropylene value chain.

Polypropylene, sometimes referred to as PP or No. 5 plastic, is used in an array of food and non-food packaging and is in strong demand as a recycled material. Through its third round of grant funding, the Coalition will provide six grants to materials recovery facilities (MRFs) across the U.S. to boost sortation of polypropylene and support targeted consumer education efforts. To date, the Coalition has awarded grants across the U.S. to increase the recovery of polypropylene by an estimated 13 million pounds annually to be made into new products, such as consumer packaging and automotive parts, rather than being sent to landfills, incineration, and into the environment. The widespread interest and commitment from MRFs across the U.S. to increase the collection and sortation of recyclable polypropylene clearly demonstrates the market strength for this material nationwide and has catalyzed more than \$10 million in additional private investments in polypropylene sortation within U.S. MRFs.

"In just one year, the Polypropylene Recycling Coalition has led the way to rapidly drive significant, measurable change to improve and increase the capture of polypropylene in U.S. curbside recycling," said Sarah Dearman, vice president of Circular Ventures, The Recycling Partnership. "The Recycling Partnership is proud to lead the Polypropylene Recycling Coalition and its meaningful work that is inspiring industry investment, supporting jobs, preserving natural resources, and activating the transition to a circular economy in the United States."

The Coalition makes grants to MRF candidates that face challenges in their ability to effectively sort and recycle polypropylene. According to recent studies of U.S. recycling access, just under 60 percent of Americans have access to recycling polypropylene. With the Coalition's strategic grants, it is estimated curbside acceptance of polypropylene will increase by nearly 6 percent once all equipment is installed by early 2022. This will result in more No. 5 plastic being sent to established end markets and encouraging the shift to a circular economy. Consumers in these areas will also be educated as to what is and isn't accepted in their curbside recycling.

Domestic reclaimers and reprocessors further along the PP value chain acknowledge the supply signals sent by the Coalition's MRF grants. In response, many made investments to prepare for processing the increased supply of this material for returning it to domestic end markets. Coalition members alone with reclamation and reprocessing facilities made more than \$32 million in investments over the past year to increase polypropylene reclamation capacity by nearly 800 million pounds within their North American facilities. Additional reclamation and reprocessing investments are planned or underway for 2022, as multimillion dollar infrastructure investments are still needed.

The six newest grantees are: •Green Waste, San Jose, California •Murphy Road, Berlin, Connecticut •Palm Beach County, Florida

- •Pellitteri, Madison, Wisconsin
- •Sonoco-Raleigh, Raleigh, North Carolina

•Sonoco-Onslow, Jacksonville, North Carolina

### Plastics =Continued from Page B1

drive more money into solving our dismal performance in recycling. Yet, demand alone will not solve the issue – we need technology to keep up."

A study by Toluna, a tech company operating in the market research space, on American's attitudes about the environment and sustainability surveyed 1,000 people in the U.S.

The key finding of the study show that most Americans (58 percent) are concerned with plastic packaging and avoid (68 percent) buying these items. Although one third of respondents feel it's easier to shop plastic free than it was 5 years ago, 43 percent find there aren't enough plastic-free options available while 42 percent find that plastic-free is more expensive.

Who is responsible for reducing plastic? Most respondents feel that plastic reduction falls on brands/manufacturers (62 percent), everyday people (59 percent), supermarkets/retailers (49 percent) and government (43 percent), respectively. And while 1/4th feel that supermarkets have done a good job tackling plastic, 41 percent feel they'd like to see more progress.

Following are the top issues surrounding plastic packaging:

- •Plastic pollution in oceans 57 percent
- •Plastic pollution on land 51 percent
- •Lack of incentive to recycle 46 percent
- •Lack of recycling facilities
- available 39 percent
- •Lack of available of alternative
- packaging to plastic 37 percent •Environmental cost to produce
- plastic 34 percent
- •Plastic alternatives not being
- affordable 33 percent

Sajoux pointed out that plastic recycling is related to regulations, so if the state pushes for more sustainable industries and cities, then the solutions will bloom.

"Right now, because waste management and recycling is a scale



business, it's only limited to a few players. The real solutions are coming from companies bringing in new technologies to tackle this problem," Sajoux said. "I think big companies should stay alert and partner with innovative startups to scale that positive impact and widen their reach."

#### The COVID Impact

Needless to say, the ongoing pandemic is causing a lot more people to eat at home, and getting individual meals that are sealed in plastic containers. From a physical standpoint, a lot more plastic packaging is coming into MRFs. And with the sheer increase in the number of objects entering a plant, MRFs simply cannot install robotics and automation fast enough to keep up.

"There is a huge need for technology that helps MRFs recover more recyclable objects, and enables consumer packaged goods (CPG) manufacturers and package manufacturers to use more recycled content allowing them to excel at Environmental, Social and Corporate Governance (ESG) initiatives and Extended Producer Responsibility (EPR) goals," Gambelin said.

The ongoing COVID pandemic has led to very erratic pricing impacts for recycled plastic as the pandemic has impacted the supply chain, and as companies were shut down during the height of the pandemic, it decreased the volumes by sector, and the cost of logistics increased dramatically.

According to Gambelin, the price fluctuation has been attributable to supply and demand – and right now we have a significant curtailment of supply.

"Discarded milk jug volume tripled from a year ago. COVID was the leading factor. We turned supply off for institutional sized packaging and could barely meet demand for consumer sized," Gambelin said. "As we saw, turning on and off the type of packaging and supply has been tough. Tied to this is, obviously, the price of oil. The recent rise in oil prices has affected the cost of virgin materials."

Perez said the demand for postconsumer resin will shift from low-end applications into higher-end applications which will require cleaner recycling streams. "I believe the market for recycling will only get stronger as the demand for a circular economy and lowering carbon footprints increase. Legislation will affect consumer demand, requiring post-consumer content, and major brands continue to improve their ESG scores," he added.

And while there are many technologies percolating in labs around the world, unfortunately, every bit of plastic ever produced is still with us and continues to impact the environment in landfills, dumps, waterways and incineration.

"It's only a matter of time until these technologies become cheaper and are able to scale up," Sajoux said. "The question is, do we have that kind of time?"



## PLASTICS makes statement in opposition to California SB 343

The Plastics Industry Association (PLASTICS) released the following statement after the California Senate passed SB 343, which now moves to Governor Newsom's desk to be signed into law:

"SB 343 puts more plastic in landfills, not less," said Matt Seaholm, vice president of government affairs at the Plastics Industry Association. "A number of common plastic products like yogurt cups and microwavable trays would be deemed unrecyclable and, therefore, would be landfilled. 4.5 million tons of polypropylene would now be landfilled as a result of this legislation. All of these products and many more are not only recyclable but are currently recycled in California. We urge the Governor to veto this misguided legislation and work with all stakeholders on commonsense solutions to reduce plastic waste, such as increasing investment in recycling infrastructure."

**SB 343:** 

•SB 343 establishes stringent criteria for what can be considered recyclable, SB 343 creates a definition of "recyclable" which will have impacts on all future legislation related to the circular economy and recycled content mandates.

•SB 343 includes labeling restrictions for packaging and products, creating more labeling complexity and increasing confusion for consumers.

•Products with long-standing recycling regimes - such as e-waste and batteries - and products covered under voluntary product stewardship programs, will be prohibited from making recyclability claims and communicating with consumers on the available methods for recycling these products via existing California recycling infrastructure. This will harm recycling and recovery.

•Materials collected outside of the curbside system should not be required to meet stricter recycling criteria than curbside materials.

•SB 343 directly will conflict with labeling requirements in 29 other states, Japan, and the EU.

## **Drop-off foam recycling** operations expanded in OK

(CC4C), a mission-based environmental organization in Norman, Oklahoma, received a \$23,000 grant from the Foodservice Packaging Institute's Foam Recycling Coalition (FRC) to add a foam densifier to its current operations and expand its reach in providing recycling collection events across the region.

"Churches Caring for Creation is providing the necessary services to recycle clean and empty foam packaging that is generated by residents in Norman," said Natha Dempsey, president of the Foodservice Packaging Institute, which oversees FRC. "CC4C sets an excellent example of how one organization can provide an innovative solution to expand recycling operations to its residents as foam polystyrene recycling continues to increase across North America."

To close gaps in collection for specific recyclable materials, CC4C used the grant funding to develop a new "Styro-Station" drop off program that brings foam recycling options to area residents. Currently serving nearly 50,000 households and operated solely by volunteers, two "Styro-Stations" are located at local churches in Norman and are open to the public for dropping off foam recycling. Materials accepted at the drop-off locations include foam cups, plates, clamshell take-out containers, meat trays, egg cartons, as well as coolers.

FRC funding allows CC4C to purchase and install a high-capacity densifier unit to better manage its drop-off

Churches Caring for Creation foam collection material. With this new equipment, CC4C can expand its operations from two drop offs to providing collection events for an additional five neighboring towns, providing access to foam recycling to approximately 90,000 more households.

Since 2019, CC4C's recycling program has continued to gain momentum and build success. "Our success of recycling foam has not gone unnoticed. and we're now in cooperation with the City of Norman to assist in storing the densifier and material at the local Hazardous Household Waste Collection Facility. It's exciting to see how successful this program has gotten, and this newfound cooperation is a notable sign of that," said Cathryn Bowden, coordinator for Churches Caring for Creation.

The grant is made possible through contributions to FRC, which focuses exclusively on increased recycling of post-consumer foam polystyrene. Its members include Americas Styrenics; Cascades Canada ULC; CKF Inc.; Chick-fil-A; Dart Container Corp.; Dyne-A-Pak; Genpak; Hawaii's Finest Products; INEOS Styrolution America LLC; NOVA Chemicals Corp.; Pactiv Foodservice/Food Packaging; Republic Plastics; and TOTAL Petrochemicals & Refining USA.

Churches Caring for Creation is the 20th grant recipient to receive FRC funding since 2015. Over 4 million additional residents in the U.S. and Canada can recycle foam as a result of FRC grants.

## Smurfit Kappa to acquire recycled containerboard mill

Smurfit Kappa Group plc (SKG) has agreed to acquire Verzuolo, a containerboard business in Northern Italy, for a cash consideration of €360 million. The Verzuolo mill owned by the Burgo Group, is situated close to the port of Savona in the northwest of Italy. The PM9 machine was newly constructed in 2002 and converted into a 600,000 tonne capacity recycled containerboard machine in 2019.

Verzuolo is highly complementary to SKG's existing business and is strategically positioned to serve both the Southern European region and other markets ensuring we continue to provide the best service to our corrugated customers. The acquisition will deliver significant synergistic benefits including technical and production optimization, and increased containerboard integration within the Group.

The cash consideration will be funded from existing resources. It is expected that the acquisition will complete during the fourth quarter, subject to customary closing conditions including regulatory approval.

**Transaction Highlights** 

•SKG has agreed to acquire a state of the art, strategically located recycled containerboard facility

•World class recycled containerboard mill with 600,000 tonne capacity

•Provides additional security of supply for SKG's customer base

•Immediately earnings accretive

•Strengthens Smurfit Kappa's integrated operating model

•Optimally located for SKG's Southern European corrugated facilities





## Remember... Our **ADVERTISEMENTS**

INCLUDE a unique value— All ads are also displayed ONLINE!







## 2018 ZB Group Thor 1616 K Mobile Hammermill Densifier

4,929 hours 755 HP 18 to 23 metric tons per hour!



Register

Today!

Inquire at: DADE Auctions, Inc. www.DADEAuctions.com 844-333-3030

## FEATURED BUY NOW LISTINGS



**Cumberland Model 30 Granulator.** 200HP. New bearings and blades!



**1989 SSI 3400HD Shredder.** Mobile hookshear shredder with spare parts.



**2016 Wolverine Tire Debeader.** Only 100 hours on the meter!



Wendt Tumble Back Feeder. 12' load area. 27' tall.



**2004 Sierra T500LS Shear.** Portable shear logger baler. Only 5,850 hours!



Allis-Chalmers 1,000HP Shredder Motor. 700 RPM 4,000 Volt



Wendt Mega Shredder 130 X 115. 7,000HP. Ready to ship!



**2014 Eagle Portable Tire Debeader.** Used less than 10 hours! Like new.



**General Kinematics Vibratory Table.** 45' long and 10' wide.

## www.DADEAuctions.com • 844-333-3030