



American Recycler

NewsVoice of Salvage, Waste and Recycling

AmericanRecycler.com

FOCUS:
Construction & Demolition

High growth rate projected for the waste to energy industry

Changing dynamics of C&D recycling



WHAT'S INSIDE

- Scrap Metals MarketWatch..... 10
- Salvaging Millions..... 12
- Business Briefs..... 14
- Classified Advertisements..... 15
- Equipment Spotlight..... B4
- New Product Showcase B6

- Ecomaine ramps up recycling reviews. Page A5
- NY State Senate first to pass right-to-repair bill. Page A12
- Recycled plastics used in concrete. Page B3

CHANGE SERVICE REQUESTED

07.2021

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

American Recycler

1789 Indian Wood Circle, Ste 250
Maumee, OH 43537



There is now more pushback against new landfills being built in the U.S. because the public is becoming more concerned about the long-term impact of burying trash in the ground. Utilizing trash for energy is one way to reduce landfill needs.

by MAURA KELLER

mkeller@americanrecycler.com

The waste to energy (WtE) industry is seeing significant growth potential. Some predicted growth estimates indicate the industry will grow at a compound annual growth rate (CAGR) of over seven percent by 2024, while others show an estimated CAGR of about five percent by 2028. Regardless, the growth of the WtE is predicted to be high and will have an ongoing impact on the waste and recycling industry.

Growth potential

Today's WtE technologies destroy or capture toxins from trash, including lead, mercury, volatile organic compounds, halogens and other pollutants, filter out harmful chemicals, eliminate landfill odor and destroy contaminated waste.

According to Megan Wilson, president, corporate development & investor relations at Babcock & Wilcox, the growth of the waste-to-energy industry is driven by multiple factors, and those factors can differ by region. In Europe, especially in the U.K., Scandinavia, and other E.U. countries, regulatory actions have encouraged less reliance on land-filling of municipal waste up to and including banning any new landfills.

There is a strong sense of social responsibility in some countries that drives recycling efforts and land conservation.

"Waste-to-energy plants fit well with that ethos because they encourage recycling and put non-recyclable waste

to beneficial use in generating baseload power while safeguarding the environment," Wilson said. Waste-to-energy plants that Babcock & Wilcox has built for its customers feature state-of-the-art pollution controls, allowing these plants to generate baseload power, or provide district heating, or both, and do so while controlling environmental emissions.

In the U.S., there are about 70 WtE plants currently in operation, which is far fewer than in Europe. As Wilson explained, in the U.S., land for landfills is more abundant and the economic cost to landfill waste (putting aside the environmental cost) is far lower than in Europe.

"At the same time, we're also seeing pushback against new landfills being built in the U.S. because the public is becoming more concerned about the long-term impact of burying trash in the ground and a growing sense that we can do a better job of reducing the amount of waste we produce, by recycling, re-using and putting the waste we do generate to a beneficial use," Wilson said.

The U.S. is seeing increased discussion by lawmakers and policymakers about methane emissions from landfills and other sources. "Methane is often ignored because it is shorter-lived in the atmosphere than carbon dioxide; however, it packs a powerful punch," Wilson said. "According to the United Nations' Intergovernmental Panel on Climate Change, methane has roughly 84 times the Global Warming Potential

(GWP) of carbon dioxide on a 20 year basis. In terms of Global Warming Potential, methane accounts for nearly a quarter of U.S. emissions. Roughly one-fifth of total U.S. methane emissions from human activity are generated from landfills. We cannot address climate change without addressing methane from landfills."

According to the EPA, there are more than 2,600 active and 3,200 inactive municipal landfills in the U.S. These sites collectively emit methane that adds up to more than 330 million tons of 20 year basis GWP each year – roughly equal to the emissions from 70 million cars.

"This problem continues to grow as 140 million more tons of waste is added to landfills annually," Wilson said.

As David Roeder, director waste transition at Ecofin explained, there are pro-recycling and anti-landfill movements at play simultaneously.

"While we've had recycling and other waste reduction initiatives in the U.S. for decades, the driving force behind increased efforts in these areas in recent years (and going forward) is the achievement of de-carbonization and GHG emission-reduction goals," Roeder said. Simply put, waste can be transformed into a renewable energy source at lower carbon intensity than fossil fuel, with reduced GHG emissions. And, there is a confluence of factors contributing to growth in this sector.

See WASTE TO ENERGY, Page A4

POWER.



ProGrind H3060 Horizontal Grinder

BUILT FOR THE DAILY GRIND.

Precision Husky Corporation leads the forest products industry, building the highest quality, most rugged equipment available since 1964.

Our horizontal and tub grinders are the most powerful, easiest to use grinders in the industry. They are designed with innovative features and advanced technologies to give you the power and production needed to tackle the most demanding grinding operations.

You can invest in our equipment with confidence, and know it will do the job for many years to come. Call us today to discuss your needs and learn more about our high-performance products.



*ProGrind 5200-T
Track Mounted
Tub Grinder*

**ENGINEERED FOR PERFORMANCE.
BUILT FOR ENDURANCE.**



PRECISION
PRECISION HUSKY CORPORATION



P.O. Drawer 507, Leeds, AL 35094 • 205-640-5181 • www.precisionhusky.com • sales@precisionhusky.com

Two Brothers Scrap collects 7,160 lbs. of old electronics



Students from Mineola Middle School pose during their fifth annual eWaste Drive on April 23 in celebration of Earth Day weekend. They are joined by (back row, left to right) Amy Trojanowski, principal, and Vincent Interrante, robotics club moderator, Mineola Middle School; Patrick Talty, trustee, Mineola Public Schools Board of Education; Catherine Shanahan, assistant principal and Steve Benner, dean of students, Mineola Middle School; and Mark Santiago, manager, Two Brothers Scrap Metal.

Two Brothers Scrap Metal donated the use of a container for Mineola Middle School's eWaste Drive which brought in 7,160 lbs. of electronic waste. Residents came to the school to drop off their unwanted and unused computers, hard drives, printers, flat screen TVs, chargers and other items.

The purpose of the drive was to help the environment by disposing of electronics that are either no longer being used or do not work anymore; recycling electronic waste keeps it from winding up in landfills.

The event began as a project initiated by the school's Robotics Club. Since then, the Robotics Club teamed up with the school's Environmental Club to promote the drive to the local community. Last year's drive was canceled due to COVID-19 and rescheduled for this year to coincide with Earth Day weekend.

Two Brothers has participated in the eWaste Drive for the past five years. During that time, the company has hauled away 38,040 lbs. – more than 17 tons – of electronic waste.

Public and private investment will improve residential recycling

Significant federal and corporate investment could improve the U.S. curbside recycling rate to nearly 70 percent and deliver more than \$30 billion in economic benefits and nearly 200,000 new jobs within 10 years according to a new report released by The Recycling Partnership.

The report titled, "Paying it Forward: Investment in Recycling Will Pay Dividends," calls for a \$17 billion investment over five years to completely transform the U.S. residential recycling system, maximize its potential, and make it as accessible to all households as trash service. The investment, which would be applied to proven recycling solutions, will have an immediate positive impact including an economic benefit of \$30.8 billion over 10 years (including wages, taxes, landfill savings, and the value of recyclables).

"Leveling up the current U.S. residential recycling system will require collective collaboration from all parts of industry, all levels of government, investors, brands and people," Keefe Harrison, chief executive officer, The Recycling Partnership said. "Now is the time to take action. Corporations, federal, state, and local politicians are at the table and ready to deliver tangible change. People and the planet are demanding packaging that is both recyclable and has the means to be recycled, the U.S. government is setting aggressive sustainability and greenhouse gas goals, and companies are making bold commitments around recycling and the circularity of packaging."

The report's findings come at a pivotal time as corporations make aggressive commitments to use more recycled content, federal and state policymakers signal increased recycling expectations,

and the American people call on businesses and government alike for more sustainable choice.

For more than seven years, The Recycling Partnership has been on the ground, working with communities to transform local recycling programs. While recycling has been a part of the American ethos for nearly 50 years, nearly half of people still lack convenient, equitable access to recycling. The current system is not only fractured and underperforming, it also fails to capture and return the volume of recycled materials required to truly support a circular economy, which is an economic system aimed at eliminating waste and the continual use of natural resources.

"We can only maximize the true potential of the U.S. residential recycling system by addressing the gaps outlined in this report, and that will take supportive policy with all stakeholders at the table," Harrison added.

The report calls for three one-time investments:

- \$4 billion investment to accomplish equitable recycling for every U.S. household.
- \$3 billion investment to new or upgraded material recovery facilities that would support domestic manufacturing.
- \$4 billion investment to create residential recycling solutions for film and flexible plastics.

Furthermore, the report calls for an annual \$1.2B investment for continual education and outreach strategies to reduce recycling confusion.

"We know that the needs outlined in the Paying it Forward report are within our reach – we see them demonstrated in communities where we have made similar investments," concluded Harrison. "What we need now is scale to reach the 9,000 local recycling programs found across the U.S.; we have a once in a lifetime alignment of opportu-

Many buckets, Grapples, Bale Spears & Forks to Choose From!

Midwest Equipment

St. Charles, MN
800-234-4464 Ext.2

See Full Inventory at www.gomidwest.com



★ St. Charles

NATIONWIDE EQUIPMENT SALES!



 <p>2013 Liebherr L550 A/C cab, hyd. quick coupler, 3 yard bucket, very nice!.....\$69,500</p>	 <p>2017 Volvo L70H Enclosed, hyd. quick coupler, forks available, 10,436 hrs.....\$69,500</p>				
 <p>'96 CAT IT28F Heated cab, self leveling tool carrier boom \$39,500</p>	 <p>CAT shear Steel, used, 30½ jaw depth, fits 330-360 class \$29,500</p>	 <p>'01 Volvo L90D A/C, hyd., 3.5 yd bucket w/bolt on cutting edge \$44,900</p>	 <p>2014 SDLG 938L Aux. hyd., 2.5 yd bucket, 27,750 lbs, forks, grapple available \$32,900</p>	 <p>'15 CAT 938M Fusion hyd. quick coupler, ride control \$89,900</p>	 <p>2017 JCB 427 Volvo style quick coupler, ride control \$74,900</p>

Waste to energy

■Continued from Page 1

As Roeder pointed out there are several governmental mandates at play that are affecting the move toward more WtE facilities including: Federal standards for renewable fuels made from waste; increasingly difficult state permitting processes for new or expanded landfill; state and local bans on the introduction of organics into landfills in an effort to reduce landfill methane production; and state-required renewable portfolio standards for public utilities.

“Technology improvements also have made waste-to-energy more practical and economical at-scale for many different types of organic waste, including agricultural, food, and forestry waste,” Roeder said. There is a strong demand for energy derived from waste from governmental and commercial customers, particularly as a way to reduce GHG emissions of transportation fleets, as well as from retail customers. Furthermore, there are strong fuel-credit incentives in place that provide meaningful revenues to further encourage the production of energy from waste.

“Finally, the technology improvements have significantly broadened the energy produced, from what was simply electricity – from garbage incineration (aka cash-for-trash) – to a wide variety of renewables, such as renewable natural gas, renewable diesel, sustainable aviation fuel, renewable wood pellets, and renewable hydrogen,” Roeder said. “With more potential applications for renewable energy, there is increased appetite to convert waste into energy. And those additional applications have broadened the waste-to-energy sector far beyond merely landfill-located projects, to stand-alone projects that divert waste from ever reaching a landfill.”

Roeder added one additional comment, “Corporations’ own ambitions to reduce the amount of waste going to

landfill to achieve higher ESG performance and their customers demanding less unnecessary waste are diverting waste from landfill to WtE. This trend is still in its early stages and has a long runway for WtE growth.”

Impacts on the recycling industry

One thing about waste-to-energy that is often overlooked is how it complements recycling programs. U.S. communities with waste-to-energy facilities actually see recycling rates increase, while reliance on landfills decreases.

“That’s because waste-to-energy combustion technologies can use waste that otherwise can’t be recycled – construction debris, non-recyclable plastics, hazardous waste, storm debris from hurricanes, wood and other materials – and use it as fuel,” Wilson said. “Metals can be recovered from the waste-to-energy process, and byproducts from this process can also be repurposed, such as for asphalt for road construction. Waste-to-energy supports recycling and the circular economy.”

Robert Laswell, a renewable energy and sustainability specialist with over 10 years of experience in the solar and renewable energy space said that WtE is expected to have a positive impact as the WtE initiative provides another alternative for the energy industry where huge investments are made in order to reduce our GHG emissions.

“Developing the technology of the WtE concept and recycling is going to be the reason for massive steps in the direction where we can reuse and convert the waste to a usable form of goods,” Laswell said. “These two techniques of waste management do not have an impact on each other simply because they can use different kinds of waste materials.”

Roeder said that in the near term, for older, larger landfills that already produce significant amounts of methane from decaying organics, they can achieve royalty revenue streams from converting the captured methane into electricity or renewable natural gas for sale.

“These are often 10 to 20 year agreements that provide an additional, long term source of financial stability

for the participating landfill,” Roeder said. Longer term, landfill tonnage is expected to be adversely impacted by several current initiatives, such as organic-introduction bans, reduced packaging content, and waste diversion strategies.

As a partial offset to lower incoming tonnage on a relative basis, Roeder pointed out that it is widely expected that there will be far fewer landfill permits issued, which should alleviate some of the current geographic-based competitive risk.

“For recycling companies that currently focus on paper, plastics and metals, there are opportunities to broaden their waste processing operations to handle waste that will be diverted to the energy sector,” Roeder said. “We believe that it is a realistic scenario to see a consolidation and integration in the waste management industry in which large players offer the full range of services to corporates and municipalities, i.e. recycling, waste-to-energy and landfill, rather than focus only on one outlet for waste.”

The biggest challenge for waste recycling has always been how to achieve an efficient separation and collection process, while overcoming contamination issues. This plays a role in WtE processes as well. “As true as that has been for glass, plastic bottles and aluminum cans, it will also be true – perhaps even more so – for organics like food-related waste, wood waste and green/yard waste, which collectively account for nearly 60 percent of landfilled waste in the U.S. per the EPA,” Roeder said. “A separate, unique process will likely be necessary to effectively handle these organic wastes.”

Another crucial part of the WtE initiative is to educate people and industries about what is the most efficient way of waste disposal. Laswell said that collecting the waste separately is the crucial first step that has to be achieved. Once all industries and households start to be aware of why the separate collection is important, the whole initiative will be successful.

“The education in that specific subject will give them knowledge because we all have to care about our waste,” Laswell said. “We have to start with the most waste-generated industries, which will be provided with an exact waste management plan and how each piece of waste has to be treated. Simultaneously the people also have to be perfectly aware of how their waste has to be disposed of in order to get benefits of it.”

Continuing progress

Wilson sees tremendous growth potential in renewable energy, including waste-to-energy. Babcock & Wilcox is currently pursuing WtE opportunities in the U.S., the Caribbean, South America, Latin America, Asia, Europe and the Middle East.

“Beyond waste combustion for heat and power generation, we also see a growing future market potential for waste-derived and synthesized fuels

American Recycler
NewsVoice of Salvage, Waste and Recycling

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

Owner, Publisher and Editor

ESTHER G. FOURNIER
news@AmericanRecycler.com

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 2020 by American Recycler News, Inc. All rights are strictly reserved and reproduction in whole or in part is prohibited without prior written permission from the publisher.

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

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

2011 KOMATSU PC210LC-8 CRAWLER AUTO DISMANTLER



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.



FINANCING AVAILABLE



The Right Equipment at Competitive Prices

303-699-7766

EQUIPMENT INTERNATIONAL
www.EquipInt.com

See WASTE TO ENERGY, Page 14

Grants made available for Michigan communities

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) and The Recycling Partnership announced \$575,000 in grants for Michigan communities to improve residential recycling. The grants are available to introduce communitywide projects aimed at fighting recycling contamination and improve the quality of materials residents recycle at curbside or drop-off locations.

“After the impressive results from previous grant projects, we’re excited to offer this opportunity to additional Michigan communities, in collaboration with The Recycling Partnership,” said Liz Browne, director of EGLE’s Materials Management Division.

In addition to continuing to build on the success of Michigan’s award-winning Know It Before You Throw It recycling education campaign, grantees with curbside recycling service will use The Recycling Partnership’s nationally acclaimed Feet on the Street cart-tagging program. Feet on the Street is designed to improve the quality of curbside recycling by educating residents.

All Michigan community recycling programs are eligible to submit an application for grants up to \$4 per household for curbside programs and up to \$3 per household for drop-off programs. Applications are due August 20, 2021.

Ecomaine ramps up recycling reviews

Staff from recycling facility will continue educational campaign into next year in Maine communities

Ecomaine, a single-sort recycler in Maine, will build on the success of its curbside recycling education program by expanding the project into more communities in Maine in 2021 and 2022.

To provide greater public awareness of acceptable recycling materials, ecomaine hired staff in March to examine recycling and trash collection routes in areas of communities in Maine where data indicates levels of higher contamination and where municipal staff requested the program. The staff review residents’ bins and provide educational feedback on the importance of recycling – and recycling properly.

During cart reviews, inspectors lift the lid and evaluate the contents of the cart. They then issue green tags for acceptable recyclables within the cart or bin, yellow tags for loads that have a handful of items that are not recyclable, and red tags for loads with too many items that cannot be recycled – including trash. The bins with red tags are considered overly contaminated and increase costs for the municipality. Therefore, they will not be picked up by the collection company. The tags will identify items that do not belong in the recycling cart.

After 12 weeks in Portland, Scarborough, South Portland, Westbrook, and Yarmouth in the spring of 2021,



“The next step is to determine how broad the need is, and how far we can increase the impact, based on what the data tell us and what we hear from our partners.”

Ecomaine will examine recycling contamination data from the loads it receives, along with expressed interest from its 71 member communities to determine which municipalities will take part in the project – and when – over the next year.

When ecomaine staff ran the program previously, significant gains were made in reducing contamination from impacted loads of recyclables – in one case, reducing the contamination rate from higher than 80 percent down to 25 percent.

The most recent program began in April in neighborhoods in Portland,

ecomaine will seek to continue the momentum in as many communities as can be reached through a new model that shares the cost of the program with each participating municipality.

“We have seen the popularity and impact of this project grow over a couple of years,” said Matt Grondin, ecomaine’s communications manager.

Scarborough, South Portland, Westbrook and Yarmouth, with data collected and analyzed weekly. On average, through the project this spring, green tags have increased 52 percent, while yellow and red tags have decreased 62 percent and 69 percent, respectively.

NEW & USED EQUIPMENT FINANCING AVAILABLE

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

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

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

DADE
Capital Corp.



800-823-9688

35 Years of
Specializing in:

- Salvage
- Recycling
- Waste



APPLY ONLINE

www.DADECapital.com

On Site Plastic Recycling MADE PROFITABLE!

Introducing the *BCA Industries Patented*

PD1000 ICCB SHRED SYSTEM

for bulky
plastics

Only
32,000 lbs as shown



See System in action **NOW!**

www.youtube.com/watch?v=Nwt8foudNPM&t=12s

- Size to 3/8" in screenless, single pass
- Shred chips to 2"
- Crush curbside cans, plastic barrels, pallets, bumpers and more
- Use dual bagger without interruption
- Weigh with digital scales
- Perfect for hard to screen materials
- Stationary, portable & custom options
- Load material w/integrated Donkey Lift
- Make weight when shipping
- Powered by hydraulic 140 hp diesel John Deere



This **TRIPLUS®** knife system converts a standard shredder to a dual shaft rotary shear shredder/single shaft granulator hybrid and is available for licensing and branding to other recycling equipment. Available for all BCA shredders.

SEND SAMPLES TO: **BCA INDUSTRIES**
4330 W GREEN TREE RD MILWAUKEE WI 53223



414.353.1002

bca-industries.com

Data reveals younger people campaign for sustainable packaging

Despite a year of unprecedented disruption, new data reveals that consumer demand for sustainable packaging continues to grow, led by a younger generation who are overwhelmingly willing to pay more for packaging that they consider to be eco-friendly.

Trivium Packaging, a \$2.7B global metal packaging company, released its 2021 Global Buying Green Report in partnership with Boston Consulting Group, surveying more than 15,000 participants across Europe, North America, and South America on their behaviors related to sustainable packaging, including willingness to pay more for eco-friendly packaging, and perceptions of different packaging materials.

The study reveals a steady climb in younger consumers' dedication to sustainable living. 83 percent of those 44 and under were willing to pay more for sustainable packaging. The study also showed that younger consumers were 23 percent more inclined to pay for sustainable packaging than older generations, with no significant difference in income bracket or between Millennials and Generation Zers.

Key findings conclude that overall consumer demand for sustainable packaging remains high despite the major impact COVID-19 had globally. Sixty-seven percent of consumers identified as environmentally aware, consistent

with last year's report. Additionally, 67 percent of those surveyed identified packaging that is recyclable as important, 64 percent identified packaging that contains recycled content as a priority in their buying decisions.

Consumers were aligned across all regions on identifying plastic as the most unsustainable packaging material on the market, consistent with findings from Trivium's 2020 report as well as broader research on the negative environmental impact of plastic packaging. Survey respondents consistently associated plastic with undesirable attributes such as ocean pollution (63 percent), harmful (55 percent) and wasteful (36 percent).

But while consumer awareness of environmental impact, pollution and harmful materials to the planet remains high, the study points to an alarming consumer misconception: a gap between actual material recyclability and consumer perceptions of it. Metal, for example, is recycled at a much higher rate (64 percent) than perceived by the consumer (48 percent) while glass, plastic and liquid cartons all have a much lower rate of recycling (32 percent, 14 percent, 26 percent) than that perceived by the consumer (65 percent, 41 percent, 65 percent respectively).

For a link to the full report, view this article on www.AmericanRecycler.com.

High-Production, High-Pressure AUTO-TIE BALERS



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



INTERNATIONAL BALER

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

PAPER

AF&PA releases updated paper reports for May

The American Forest & Paper Association released its May 2021 U.S. paper reports.

Printing-Writing Paper

According to the report, total printing-writing paper shipments increased 11 percent in May compared to May 2020. U.S. purchases of total printing-writing papers increased six percent in May compared to the same month last year. Total printing-writing paper inventory levels remained essentially flat (+0.3 percent) when compared to April 2021.

•Uncoated free sheet (UFS) paper shipments increased 22 percent compared to May 2020 while the inventory level increased two percent compared to April 2021. UFS imports and exports both increased compared to April 2020, up 10 percent and 25 percent respectively.

•U.S. purchases of coated free sheet (CFS) papers in May decreased 16 percent compared to last May while the inventory level decreased one percent compared to April 2021. CFS imports decreased 14 percent while exports increased 32 percent in April 2021.

•Coated mechanical (CM) paper shipments decreased 14 percent compared to May 2020 while the inventory level increased one

percent compared to April 2021. CM imports decreased 17 percent while exports increased five percent in April 2021.

•U.S. purchases of uncoated mechanical (UM) papers in May increased 16 percent compared to last May while the inventory level decreased 15 percent compared to April 2021. UM imports increased 10 percent while exports decreased 17 percent in April 2021.

U.S. Packaging Papers & Specialty Packaging

The American Forest & Paper Association (AF&PA) released its May 2021 Packaging Papers & Specialty Packaging Monthly report.

•Total packaging papers & specialty packaging shipments in May increased five percent compared to May 2020. They were up two percent when compared to the same five months of 2020.

•The operating rate was 87.6 percent, up 7.3 points from May 2020 and up 5.6 points year-to-date.

•Mill inventories at the end of May decreased 2,000 short tons from the previous month and were up 3,000 short tons compared to May 2020.

•The operating rate was 95.1 percent, up 9.6 points from April 2020 and up 5.2 points year-to-date.

Action taken against Cascades Containerboard Packaging

The New York State Department of Environmental Conservation (DEC) issued a Notice of Violation (NOV) to Cascades Containerboard Packaging, Inc., in the city of Niagara Falls, after the agency determined the facility was generating a persistent noxious odor that resulted in dozens of complaints from area residents, business owners, and state and local officials. DEC first recorded the complaints in mid-May.

“After repeated and persistent odor complaints, DEC is directing Cascades Containerboard to undertake a comprehensive suite of actions to stop these odors, effective immediately,” DEC commissioner Basil Seggos said. “We are also requiring Cascades to undertake a full survey of its operations to address the source of this odor and keeping them on task with a compliance schedule to further protect the community of Niagara Falls.”

Under the terms of the NOV, Cascades must immediately:

- Cease storing secondary sludge outdoors;
- Reduce facility production to a level that ensures adequate odor control;
- Ensure secondary sludge is removed from the facility daily;
- Increase odor control applications to its secondary sludge; and
- Add a portable on-site misting system for sludge treatment to mitigate odors.

In addition, DEC is directing Cascades to adhere to a strict compliance schedule, which includes: submitting an explanation for the odors; clarifying its sludge removal plan on weekends and holidays; establishing and managing a 24 hour odor complaint hotline and email system for public use; and submitting bi-weekly progress reports to DEC. The NOV also requires the facility to conduct a survey to identify all potential sources of odors and submit a report detailing its plans to correct the problem.

The NOV filed advised Cascades that its actions violated Environmental Conservation Law 6 NYCRR Part 211.1, and a condition of its Air State Facility Permit.

The NOV follows actions taken by DEC against Cascades in May 2021. DEC staff immediately responded to initial public complaints and, following investigation, issued a warning letter to Cascades Containerboard on May 21. Cascades responded to the warning letter by acknowledging the source of the odors and providing a plan for corrective action. Cascades agreed to employ corrective actions to mitigate the odors, including enhanced on-site treatment of its secondary sludge from the on-site wastewater treatment plant, increasing the frequency of off-site transport of sludge, and the installation of a misting system to reduce the emanating putrid odors. Despite these actions, DEC continued to receive verified odor complaints.

ROLL-OFF TRUCK REPLACEMENT! SUPER MINI for 20/30/40 YD BOX

- Carries 52-90% more in most states
- More Maneuverable than a truck
- Only 25' 11" Long

Now
In
Stock!



- ROLL OFFS
- CRUSHED CAR TRAILERS
- GONDOLA, PUP, TWO CONTAINER

BUY PARTS ONLINE 24/7
Rollers, Straps, Sheaves, Cylinders,
Hydraulic Valves, Cables, Tarps & More!
www.rollofftrucktrailerparts.com

734-722-8100
www.benlee.com

SALES, TRADE-INS WELCOME!
greg.brown@benlee.com

See all equipment at www.DADEAuctions.com!



2003 SIERRA 500 TON SHEAR

Completely rebuilt in 2019!



GUIDETTI SINCR0 530 CABLE GRANULATOR

Comes with Pre-Chopper, 30HP. Upgrade your copper today!



BONFIGLIOLI DRAKE 2000 M-16 SHREDDER

2011 with 960HP motor. Ready to ship!



1981 HARRIS 500 TON SHEAR

Well maintained, good operating condition. *Price just lowered!*



WAUKESHA 12 CYLINDER DIESEL ENGINE

1,250HP Previously used on a shredder.



2005 DIDION ROTARY DRYER

96 inch diameter. 50 feet long.



ALUMINUM KING AK850 SMELTER

2015. Recently re-lined.



2005 LABOUNTY MSD 2500R SHEAR

No leaks! Rotator in good condition.



2011 LIEBHERR L580 WHEEL LOADER

Solid tires. Quick Disconnect. Heat and air!



ELETELE 5000 HP LIQUID RHEOSTAT

Brand new, never used!



NEW IRONAX ENVIRORACK FLUID DRAIN SYSTEM

The easiest way to prep your cars!



2005 AL-JON 580CL AUTO LOGGER

New engine 6 months ago!



CATERPILLAR 345C MATERIAL HANDLER

Fixed high cab with gen-set.



MCINTYRE 610 ALLIGATOR SHEAR

3 phase. 24 inch blade.



2002 METSO TEXAS 80 x 104 HAMMERMILL

Two 3,500HP motors. Tons of wear parts!

Financing available at DADECapital.com

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



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



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



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



SCHUTTE BUFFALO WA SERIES HAMMERMILL
Never used! 50HP



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



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



2006 WENDT FINDER 2400
Good condition. Upgrade your shred today!



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



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



COLMAR P5.260 LOGGER BALER
2004 with a CAT engine.



SSI 6000HD CLOSED LOOP SHREDDER
Disassembled and ready to ship.



2012 HARRIS 60 x 90 HAMMERMILL SHREDDER
2000HP complete ferrous shredding operation!



WILLIAMS MODEL 60x52 METAL SHREDDER
Includes 650HP motor!

DADE
Auctions

ASSET MANAGEMENT FOR SALVAGE, RECYCLING & WASTE

844-333-3030

www.DADEAuctions.com

METALS

Steel imports up 0.8 percent year-to-date through April

Based on preliminary Census Bureau data, the American Iron and Steel Institute (AISI) reported that the U.S. imported a total of 2,634,000 net tons (NT) of steel in April 2021, including 1,654,000 NT of finished steel (up 14.1 percent and down 7.6 percent, respectively, vs. March final data). Through the first four months of 2021, total and finished steel imports are 9,263,000 and 6,117,000 net tons (NT), up 0.8 percent and 5.1 percent, respectively, vs. the same period in 2020. Annualized total and finished steel imports in 2021 would be 27.8 and 18.4 million NT, up 26.2 percent and 13.7 percent, respectively, vs. 2020. Finished steel import market share was an estimated 18 percent in April and is estimated at 18 percent over the first four months of 2021.

U.S. IMPORTS OF FINISHED STEEL MILL PRODUCTS BY COUNTRY OF ORIGIN (Thousands of Net Tons)					
Preliminary	APR 2021	MAR 2020	2021 (annualized)	2020 (12 months)	% Change 2021 Annual vs. 2020
SOUTH KOREA	263	239	2,593	2,015	28.7%
JAPAN	88	85	919	767	19.8%
TURKEY	63	43	792	562	41.0%
GERMANY	47	82	653	725	-9.9%
TAIWAN	40	88	567	573	-0.9%
BRAZIL	42	13	388	504	-23.0%
VIETNAM	46	44	366	314	16.4%
CHINA	23	27	328	376	-12.8%
All Others	1,041	1,169	11,745	10,303	14.0%
TOTAL	1,654	1,789	18,351	16,139	13.7%

Key finished steel products with a significant increase in imports in April compared to March are heavy structural shapes (up 72 percent), plates in coils (up 35 percent), cut lengths plates (up 27 percent), hot rolled sheets (up

19 percent) and standard pipe (up 11 percent). Products with a significant year-to-date (YTD) increase vs. the same period in 2020 were cut lengths plates (up 37 percent), hot rolled sheets (up 32 percent), sheets and strip all

other metallic coatings (up 28 percent), plates in coils (up 19 percent), wire drawn (up 12 percent) and reinforcing bars (up 12 percent).

In April, the largest volumes of finished steel imports from offshore were from South Korea (263,000 NT, up 10 percent from March final), Japan (88,000 NT, up 3 percent), Turkey (63,000 NT, up 49 percent), Germany (47,000 NT, down 42 percent) and Vietnam (46,000 NT, up 4 percent). For the first four months of 2021, the largest offshore suppliers were South Korea (864,000 NT, up 22 percent vs. the same period in 2020), Japan (306,000 NT, up 13 percent), Turkey (264,000 NT, up 27 percent), Germany (218,000 NT, down 7 percent) and Taiwan (189,000 NT, up 2 percent).

Elemental expands position in U.S. metals recycling market

Elemental Holding Group has finalized the acquisition of Maryland Core Inc., one of the leaders in the platinum group metals (PGM) recycling market on the U.S. east coast. "Thanks to our ambitious investment policy, we are strengthening our position in the global supply chain of economically strategic raw materials," said Krzysztof Spyra, management board member of Elemental Holding.

The acquisition of Maryland Core is another investment by Elemental Holding in the platinum group metals

(PGM) recycling market. In December 2019, the group purchased a controlling stake in PGM of Texas, which has an extensive purchasing network in 11 locations across the U.S., as well as a modern processing plant and chemical laboratory. Through organic growth and acquisitions in Europe, Asia and North America, the Elemental Holding Group has increased its platinum group metals (PGMs) production volume from 42,000 oz t (1.25 t) in 2016 to nearly 500,000 oz t (15 t) in 2020.

"The integration of Maryland Core into the structure of the Elemental Holding Group is another important step in the implementation of our strategy. It envisages building the largest entity dealing with sourcing and green production of precious metals, including platinum group metals (platinum, palladium, rhodium) and copper group metals (silver, gold). As we integrate companies operating around the world, we invest in the latest technologies, thanks to which the production process is not only cost-effective, but also optimal for the environment," said Spyra.

The platinum group metals (PGM) include platinum, palladium and rhodium, as well as iridium and ruthenium. A total of about 650 tons of these

metals are obtained worldwide annually – about 500 tons from mines and about 150 tons from recycling. The largest producer of PGMs is South Africa, which accounts for 73 percent, 39 percent and 82 percent of the world's platinum, palladium and rhodium output, respectively. Due to the depletion of deposits, the mining of PGMs is much more costly and burdening the environment than obtaining them through recycling.

The transaction was conducted by Elemental Holding Group in cooperation with the Polish International Development Fund, managed by PFR TFI, and the Polish Development Bank (BGK). The value of the transaction was around \$11 million.



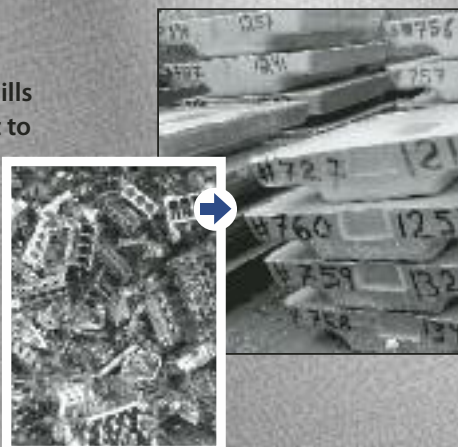
ARE YOU LOOKING FOR A WAY TO INCREASE YOUR PROFITS FROM YOUR IRONY ALUMINUM SCRAP?

With our furnace processes, you can create three products:

- Aluminum ingot to go straight to the mills
- Clean HMS 1 or HMS 2 steel to go direct to the steel mills
- Furnace hearth dross to the rotary furnaces for further processing

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

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



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

Recycling Services International, LLC
518-424-1168
[facebook.com/RecyclingFurnaces](https://www.facebook.com/RecyclingFurnaces)

Commodity		Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
#1 Bushelings	per gross ton	\$365.00	369.00	370.00	435.00	587.00
#1 Bundles	per gross ton	359.00	354.00	335.00	431.00	535.00
Plate and Structural	per gross ton	321.00	335.00	370.00	400.00	475.00
#1 & 2 Mixed Steel	per gross ton	295.00	309.00	351.00	395.00	455.00
Shredder Bundles (tin)	per gross ton	165.00	190.00	285.00	298.00	305.00
Crushed Auto Bodies	per gross ton	165.00	190.00	285.00	298.00	305.00
Steel Turnings	per gross ton	106.00	106.00	135.00	189.00	225.00
#1 Copper	per pound	3.71	3.61	4.05	4.15	4.20
#2 Copper	per pound	3.99	3.36	3.74	3.88	3.80
Aluminum Cans	per pound	.68	.67	.71	.79	.65
Auto Radiators	per pound	1.64	1.51	2.19	2.05	2.12
Aluminum Core Radiators	per pound	.62	.59	.71	.66	.72
Heater Cores	per pound	1.35	1.43	1.51	1.27	2.01
Stainless Steel	per pound	.69	.68	.68	.73	.70

All prices are expressed in USD. Printed as a reader service only.

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



DAVE VAN VLEET, SALES MANAGER
30+ YEARS OF EXPERIENCE



JAMIE MILLER, CEO/CONTROLLER
30+ YEARS OF EXPERIENCE



MIKKI MOORE, ACCOUNTS RECEIVABLES
20+ YEARS OF EXPERIENCE



JIM ADAMS, SALES WESTERN STATES
20+ YEARS OF EXPERIENCE



SHAWN KALKBRENNER, QUALITY CONTROL
20 YEARS OF EXPERIENCE



BRIAN PAULS, SHOP FOREMAN
15 YEARS OF EXPERIENCE



RICK KIELTY, COATING SPECIALIST
20 YEARS OF EXPERIENCE



TOM HARREN, TRANSPORTATION MANAGER
20 YEARS OF EXPERIENCE



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



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

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

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



JEREMY DHANKE, CNC OPERATOR
15 YEARS OF EXPERIENCE



DON DONABAUER, SERVICE MANAGER
25+ YEARS OF EXPERIENCE



ALAN THIELEN, R & D
30+ YEARS OF EXPERIENCE



LARRY DONNAY, SALES EASTERN STATES
30+ YEARS OF EXPERIENCE



KELLY DANDELKE, PLANT MANAGER
20 YEARS OF EXPERIENCE



JERRY SCHMIDT, SHIPPING & RECEIVING
15 YEARS OF EXPERIENCE



DENNIS HUHN, SERVICE SPECIALIST
25+ YEARS OF EXPERIENCE



PETER VOSSEN, SPECIAL PROJECTS MANAGER
30 YEARS OF EXPERIENCE



JEFF STUCKELBERG, ROBOTICS WELDER
15 YEARS OF EXPERIENCE

SALVAGING Millions

by Ron Sturgeon
Autosalvageconsultant.com

What is my business worth, Ron?

My comments here are very philosophical and general in nature, but because I receive so many inquiries on this topic, I thought it might be good to discuss it. Most, if not all of the principles here apply to most any business, not just recycling businesses.

I have been hired many times to help determine the value of a yard (not including real estate), in cases ranging from contract disputes, tax cases, condemnations and assisting buyers and sellers.

I have never heard of a salvage yard (not including real estate) selling for more than one times its annual sales, and most often it sells for much less. Typically, the sales price for the business is a multiple of earnings (about four times earnings), which need to be legitimately recast to correct errors. Another method is to use the value of the assets. An operation with significant upside can be worth more than four times earnings. It's funny, most sellers are "just turning the corner on earnings" and nearly always see significant upside, even though they have been in the used auto parts business for decades. These numbers are merely estimates and rely on many factors. For instance, if all your equipment is worn out, expect to get dinged for at least part of that cost which is deducted from the indicated price as a multiple of earnings.

In asset discussion, the value of used parts inventory always comes up. Typically, that asset can't be worth more than about three months sales (from that inventory, not including brokered parts or car sales). Many folks think because their warehouse is bursting at the seams with hundreds of engines that the inventory is worth a ton. Inventory is only worth what it can produce in sales. Most recyclers are pack rats and save way too many parts, that are unlikely to ever sell. Yep, squeeze out that last nickel of revenue, but spend a dime to do it pulling and saving parts.

The earnings used for the multiple must include fair market value rent, which will drive the land value, and compensation for the owner.

The land may be worth more for other uses, and if so, sell it for those uses and close the yard. Also, a typical well run yard shouldn't

need more than 10 acres (many do well with 3 to 7 acres), so I suggest you sell the yard with the land currently being utilized, not to exceed 10 acres, and sell rest of the land to another user who can pay top dollar.

The land value for the wrecking yard should be driven by the rent payment being made, using an 8 to 10 percent or so return on investment. A typical real estate investor will want a higher return due to environmental risk. Obviously an ex-operator could settle for less of a return, as they are more comfortable with the risk. So, your P&L should show the rent, before net earnings. If the rent is say, \$3,000 per month or \$36,000 per year, on a triple net lease (where the tenant pays insurance, taxes and most other expenses), the land is worth about \$400,000 for the yard use. If your land is worth more than \$400,000, you're not paying enough rent. Many operators, who think they are making money, aren't making anything because they aren't paying themselves enough rent.

If after rent, (\$36,000), and adequate compensation to owner (at least \$50,000), cost of goods sold and other expenses, you still have earnings, of say, \$35,000 (10 percent of sales), the business is worth a maximum of \$140,000 (4 times earnings), and the land is worth about \$400,000 based on the rent being paid. If the rent isn't market rate, or there has been significant development in the area, the land could be worth more of course, perhaps much more. Obviously if the earnings are more and can be proven, the business could be worth more.

My experience is that owners hardly pay themselves anything, and rent isn't being paid, or is not at market rates, and once the rent is adjusted to the right rate and the owner is paid a reasonable amount, the earnings are negative, which means the whole enterprise is worth commensurately less, if anything, and its likely time to liquidate, sell the land and retire.

Ninety percent of people that contact me are unrealistic about the value of their business. Their savior is that their land is worth more for other uses. If you are looking to sell your business, be sure to find out what the land is worth – it may be time to close or move the business and realize the value of the land.

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

NY State Senate first to pass landmark right-to-repair bill

The New York State Senate has overwhelmingly voted to pass right to repair legislation that could force manufacturers to make it easier for customers and repair shops to fix their devices.

The New York State Senate voted 51 to 12 to pass the Digital Fair Repair Act, becoming the country's first legislative body to approve a right to repair bill. The bill requires that original equipment manufacturers (OEM) provide the proprietary information and resources needed for repairs available for sale to third-party repair providers and consumers.

According to the text, it "requires OEMs to make available, for purposes of diagnosis, maintenance, or repair, to any independent repair provider, or to the owner of digital electronic equip-

ment manufactured by or on behalf of, or sold by, the OEM, on fair and reasonable terms, documentation, parts and tools, inclusive of any updates to information or embedded software."

To become law in New York, the bill still needs to pass the state's assembly and then be signed by the governor. The current New York State Assembly version of the bill is stalled, but lobbyists are working to get it passed.

"Nothing prevents third party repairers from being technically competent to complete repairs other than the lack of information being withheld by manufacturers," the bill states.

Although it would compel companies to share detailed information about devices, the bill specifically does not include trade secrets.

Manheim Central Florida expands reconditioning facility





To meet the region's growing demand for inventory and reconditioning services, Manheim Central Florida has converted a building once used to host night sales into an 8,500 sq.ft. mechanic facility dedicated to retail reconditioning.

With this service, Manheim delivers frontline ready vehicles, enabling

clients to devote more time to customer pay work and focus on their other retail operations.

The move created capacity for both locations and allowed Manheim Central Florida clients to save the cost of having to transport their units to Manheim Orlando for reconditioning.



Find us on     

nascoop.com

SERVING RECYCLERS FOR OVER 60 YEARS



**MAGNETS • GRAPPLES • SHEAR BLADES • TORCHING
CONVEYOR BELTS • SAFETY • AND MUCH MORE**

24/7 **800.321.3396** 

nascoop.com

YOU COULD WIN A WEBER GENESIS II GRILL OR OTHER GREAT PRIZES.

Scan the QR code above, and enter into the prize drawing.

No purchase necessary to enter. Prizes to be awarded 8/30. If winner cannot accept gifts, a Co-Op Credit matching the prize will be awarded.



PLASTICS

SWANA addresses current labor shortage in solid waste collection services

The hiring and retention of drivers and helpers to provide solid waste and recycling collection services is a growing challenge for public sector and private sector service providers. The Solid Waste Association of North America (SWANA) analyzed the current worker shortage and proposed short and long-term solutions in a new report responding to the impact of COVID-19.

“The COVID-19 pandemic has made it even more difficult for some companies and agencies to attract and retain collection workers, which is causing service disruptions,” said David Biderman, SWANA executive director and chief executive officer. “Solid waste is not the only industry facing this challenge, and this paper provides some useful suggestions for how local governments and companies should address the situation.”

SWANA’s Applied Research Foundation (ARF) published a report in February 2020, Recruiting Personnel for Solid Waste Collection Services, which addressed the driver shortage issue faced by waste and recycling collection service providers before the

COVID pandemic. The pandemic has had substantial impacts on solid waste collection, including making it difficult for some companies and agencies to maintain service levels. SWANA has updated its research to include this information and provides short-term and long-term solutions in the paper.

“The SWANA document builds on a report prepared by the SWANA Applied Research Foundation (ARF) that was sponsored by the ARF’s Collection Research Group and published in February 2020,” said Jeremy O’Brien, SWANA applied research director. “SWANA would like to recognize the local governments that participate in this group – Charlotte, North Carolina; Durham, North Carolina; Miami-Dade County, Florida; Clearwater, Florida; Pensacola, Florida; Phoenix, Arizona; and Tucson, Arizona; – and encourage other municipalities to join the ARF and the Collection Research Group.”

For a direct link to download the associated document, view this article on www.AmericanRecycler.com.

The inventor of the umbrella was originally going to call it brella. But he hesitated.

DOE to invest \$14.5 million to combat plastic waste

The U.S. Department of Energy (DOE) will invest up to \$14.5 million for research and development to cut waste and reduce the energy used to recycle single-use plastics like plastic bags, wraps, and films. This funding directed toward plastics recycling technologies advances the DOE’s work to address the challenges of plastic waste recycling and support efforts to build a clean energy economy and ensure the U.S. reaches net-zero carbon emissions by 2050.

“For years, single-use plastics have had a detrimental impact on the environment – clogging landfills and polluting our neighborhoods, parks, and beaches,” said secretary of Energy Jennifer M. Granholm. “Innovation in plastics recycling technology is a triple win by cutting plastic waste we see in our everyday lives, reducing industrial energy use and resulting emissions, and creating clean manufacturing jobs for American workers.”

Single use plastics are the largest subset of plastics found in landfills and among the most challenging to recycle. Plastic production accounts for more than 3 percent of total U.S. energy consumption and uses roughly the same amount of oil around the world as the aviation industry. Yet, less than 10 percent of plastics are currently recycled, most of which are “downcy-

clad,” or repurposed into low-value products.

Through this funding opportunity, DOE will support a range of projects to develop economically viable solutions for converting plastic films to more valuable materials and design new plastics that are more recyclable and biodegradable. These solutions can increase investments in recycling processes and recycling jobs in the U.S., reduce the amount of plastics that end up in the environment, and decarbonize the plastics industry.

As part of the process, applicants are required to describe how diversity, equity and inclusion objectives will be incorporated in the project.

This funding opportunity builds on DOE investments, including the Bio-Optimized Technologies to keep Thermoplastics out of Landfills (BOTTLE), the Environment Consortium and the Reducing Embodied Energy and Decreasing Emissions Institute.

BOTTLE consortium members have previously engineered an enzyme to better deconstruct polyethylene terephthalate, one of the most commonly used plastic packaging materials, developed a new approach to deconstruct single use polyethylene for use in new products, and developed a brand new plastic that can be easily recycled.

“Don’t buy a copycat, buy the original!”



800-999-8100
480.789.3893
(Outside USA)

SUPERSHEARS

www.supershears.com



**SAFE
POWERFUL
EFFICIENT**

12-Volt



**THREE
DIFFERENT
MODELS**

110/220-Volt



Gas Supershear

**Check Out Our
De-Canning Shear**

As the maker of the leading Catalytic Remover Tool for over 20 years, we make harvesting catalytic converters profitable!

We have a Shear to Fit Your Needs ... CALL US TODAY!

BUSINESS BRIEFS

Ty Rhoad named regional director at Tomra

■ Tomra Recycling, a leading supplier of sensor based sorting solutions, has named Ty Rhoad as the new regional director Americas, taking over for Carlos Manchado Atienza. Offering significant operations and sales experience, Rhoad will lead the sales, service and project management teams in North and South America. He will also engage in business development activities for the company's optical sorting solutions, helping customers to meet target purity and throughput goals by offering tailor-made solutions across numerous industries, including waste, plastics and metals.

A graduate of the University of Findlay in Ohio, Rhoad is an active member of the Future Industry Leaders Alliance of the National Waste and Recycling Association. His tenure in the waste industry includes working with ONM Environmental Products and Services and Rehrig Pacific Company. While at Rehrig, he excelled in sales, and most recently led the company's North American sales team as director of sales. Rhoad's mission at Tomra is to help advance the capabilities and overall structure of the current recycling system.

Rhoad will be based out of Tomra's North American headquarters.

CheckSammy's team to focus on waste hauling

■ CheckSammy, a retail waste and sustainable junk hauler, hired two key executives to support its fast growing business.

Cameron Funk will serve as vice president of partnerships, and Donald Campbell joins as vice president of business development. They will report to CheckSammy president, Ryan Hatch.

Funk provides a resource for current clients as well as new clients, helping them to better understand strategies to improve waste management workflows while reducing expenses. Funk spent nine years as vendor relations manager with Cass Information Systems Inc.

Campbell joins as vice president of business development. He leads efforts to accelerate its growing base of enterprise clients. He previously was manager, professional services, with Cass Information Systems Inc.

Campbell and Funk are experienced in closed-loop waste and recycling managed services and solutions, having served multi-location companies. There, they specialized in improving performance by using analytics to deliver granular insights into expenses for multi-site organizations, restaurants, retailers, hotels, healthcare, convenience chains and more.

Germain reappointed to advisory committee

■ The National Waste & Recycling Association announced that chief operating officer and senior vice president of regulatory affairs Anne Germain was reappointed to serve on the United States Department of Commerce Environmental Technologies Trade Advisory Committee (ETTAC). Germain was named as a representative of NWRA and the Waste Management & Recycling segment of the U.S. environmental technology industry.

Sebright appoints new chief operating officer

■ Sebright Products, Inc. has appointed Emir Avdic as chief operating officer over production. He will work closely with the senior leadership team and assist Brent Sebright, president of Sebright, with overseeing Sebright Products day-to-day operations, implementing the strategic direction of the company and supporting the manufacturing and delivery of high-quality products to customers.

Avdic was directly involved with finding Avermann Machine Fabricators, Sebright's German partners that represent Sebright Products in Europe. His experience in production, sales and finance is a huge benefit the company.

Avdic has held positions as institutional trader on the Forex and finance side and worked with world's largest banks. He also held a position of sales manager for an IT firm and directly managed about 20 salespeople.

As a consultant Avdic focused on the development, management and execution of strategic business development programs. This includes management and coordination of globally based employees and resources to develop international expansion strategies, identify and vet partners, guide clients through acquisitions/greenfield operations and execute expansion strategies for clients. He also worked on the international expansion for Sebright Products.

ABC adds director of inclusion, diversity, equity

■ Associated Builders and Contractors (ABC) announced that Tia Perry, formerly ABC's director of business development and partnerships, will now serve as its director of inclusion, diversity and equity in support of ABC's 69 chapters and 21,000 members.

Bringing with her 15 years of association experience to this new role, Perry will serve as a strategic thought leader to advance ABC's IDE strategy, including the measurement and monitoring of the association's initiatives, and development of new programs and practices that effectively increase IDE awareness.

Currently an American Society of Association Executives Diversity Executive Leadership Program Scholar, Perry is also the staff liaison to ABC's Inclusion, Diversity and Equity Committee, providing support, leadership and direction to the association's education, awareness and business practices.

In addition to managing the committee, Perry also spearheads ABC's Diversity Resource Groups, National Inclusion, Diversity and Equity Excellence Awards program and annual Inclusion, Diversity and Equity Summit. She also recently completed the University of South Florida's Diversity, Equity and Inclusion in the Workplace Certificate Program.

Prior to joining ABC in April 2015, Perry began her association career with the Transportation Intermediaries Association. During her nine year tenure, Perry developed and managed sales and membership efforts, affinity programs and member services, including non-dues revenue. Perry serves in several volunteer capacities; most recently she served as a volunteer leader and mentor for the Academy of Construction and Design Program.

"I have CDO. It's like OCD except all the letters are in alphabetical order... as they should be."

Waste to Energy

■Continued from Page 4

created from municipal solid waste such as syngas, ethanol or hydrogen that can be used for generating power, fueling vehicles and industrial applications," Wilson said.

PA Consulting's sustainable materials expert Tony Perrotta said that keen attention will need to be paid to the changing regulatory landscape as well as the technology frontier facing the WtE industry. For example, there is increasing interest in synthetic fuels and waste to fuels processes, but government involvement will be critical in these areas.

"A number of global levers are combining that show support for the growth of the WtE segment," Perrotta said. "You've got unprecedented

amounts of waste compounded by a recycling infrastructure strained to its limits. Combine that with a growing distaste for the export of waste and a near endless thirst for energy and the growth makes sense."

Right now, most U.S. WtE plants are located along the east coast, particularly in Florida and the New England states, where landfilling waste is more expensive or environmentally problematic.

"We think there can be a market for waste-to-energy throughout the country," Wilson said. "In our talks with policymakers, we're stressing that as part of a comprehensive clean energy policy, the U.S. government should take steps to incentivize the reduction of methane emissions from landfills by building new WtE plants and supporting recycling."

E-NewsVoice DIGITAL AD Opportunities

- Valuable digital exposure
- Focused audience
- Low cost
- Free ad design services
- Various ad sizes
- Fits any budget

Book Your Spot Now!

877-777-0043

www.AmericanRecycler.com

DON'T MISS OUT!

Visit our website to subscribe.

BRIEFS

Metso Metal adds new business relations team

Metso Metal Recycling Services has added a new business relations team. Vicki Fenton and Lisa Shimek, both business relations managers, with 68 years of combined experience supporting Metso Metal Recycling products, are ready to help with your business challenges.

The business relations team will provide genuine OEM parts for Texas Shredder, Lindemann and N-Series equipment for scrap metal processors.

McCloskey appoints new senior sales director

McCloskey International has appointed Dean Lownds to senior sales director.

Lownds joins the McCloskey International team with over 20 years invested in the heavy equipment industry with JCB, most recently as general manager, UK dealer sales. His time spent in Asia Pacific as well as the UAE developing business across the Middle East have brought a unique understanding of the market and the customer to the position. His most recent roles have involved growth projects for Africa and supporting some of the largest independent equipment dealers across Europe.

In his new role, Lownds will continue the close working relationship McCloskey enjoys with its distribution partners, as well as identify and recruit prospective dealers.

Lownds will be based out of the United Kingdom.

ISRI elects new directors-at-large to board

The Institute of Scrap Recycling Industries (ISRI) elected three directors-at-large to its board of directors during the association's spring board and governance meetings. Dan Garvin, Jacqueline Lotzkar and Andrew Lincoln will each serve two year terms.

Garvin currently serves as vice-chair of ISRI's government relations committee. In addition to his current ISRI volunteer leadership roles, Garvin previously served as the ISRI Rocky Mountain chapter president, co-chair of the ISRI council of chapter presidents and membership committee and as vice-chair of communications committee.

Lincoln is vice president of Lincoln Recycling and an officer of the company. He worked for a Fortune 500 insurance company in Portsmouth, New Hampshire and Boston, Massachusetts. While in Boston, Lincoln earned his MBA from Babson College. He is a current member of ISRI's executive committee.

Lotzkar is currently the vice president and 4th generation of Pacific Metals Recycling International located in Vancouver, Canada. She is currently vice president of the Pacific Northwest Chapter of ISRI, vice chair of the trade committee, and co-chair of the young executives council.



Classified ADVERTISEMENTS

—Always Available—
PLACE YOUR TEXT AD ONLINE
www.AmericanRecycler.com

877-777-0043

UPGRADE WITH FULL COLOR!

Featured

OUR SERVICES

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



STERNERCONSULTING

609.854.3520 tel
609.854.3596 fax
rs@sternerconsulting.com
sternerconsulting.com

IRON AX ENVIRO-RACK

Complete fluid removal in less than 5 minutes!



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

877-247-6629 • IronAx.com

Powercat Copper Recovery System



System Includes:
Powercat A System
Powercat C System
Screening Machine SM320

844-333-3030

Material Handlers

HYDRAULIC EXCAVATOR FOR SALE



2005 Hyundai Robex 210-LC 7 w/Grapple Attachment & Elevated Cab. Well Maintained!

ROSEN SYSTEMS
2325 Langford St.
Dallas, TX 75208


CONTACT US FOR INFORMATION
info@rosensystems.com • 972-248-2266

Miscellaneous

WE BUY AND SELL USED RECYCLING EQUIPMENT

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

Cumberland Model 30 Granulator



Recently rebuilt!
Includes a 100HP motor.

844-333-3030

THE ORIGINAL CATALYTIC CONVERTER REMOVAL TOOL: Our powerful and easy-to-use products are unsurpassed and we've been making them for 20 years! Choose from 110 or 12-volt, gas or de-canning models. Our three hydraulic models are fast, safe and effective. Custom applications provided as well! 800-999-8100, www.supershears.com.

NEXT DEADLINE: July 19 Call today!

Miscellaneous

HOGZILLA

DIESEL & ELECTRIC TUB & HORIZONTAL
BUILT EXTRA-HEAVY DUTY RANGING FROM MID-SIZED TO MASSIVE
20 STANDARD MODELS WITH MANY OPTIONS



Call for info:
800.743.3491
or 785.284.3454
hogzilla@cwmill.com

HOGZILLA.com

2012 HARRIS 60 x 90 SHREDDER. Complete shredding operation available! 2000 HP in good condition. System has been removed from production and taken off the grid. The complete set of Harris foundation drawings and a full list of components is available upon request. Call 844-333-3030 for details.

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

US Furnaces's
MAX-4000



Also:
PARTS • REPAIR • CUSTOM BUILDS

518-424-1168
www.RecyclingFurnaces.com

ADVERTISE! What do you have to gain? Call 877-777-0043 today!

Tire Recycling

T-REC

Triphase Electric Tire Derimmer
Only one year old!

\$10,000



CALL
469-494-4014

IRON PACK BALER

Bale a car in
ONE minute!



Remote Control • Automatic Cycle

Call for more
details and
additional
pictures.

IRON AX

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

IRON AX SHEAR PACKAGES



All shears feature 360°
continuous rotation.

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

THE ENVIRO-RACK

Complete fluid removal in less than 5 minutes!

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!



 **RECYCLING**
EQUIPMENT SALES, INC

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


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

Changing dynamics of the C&D recycling industry

by MAURA KELLER

mkeller@americanrecycler.com

From silica dust violations to regulatory statutes surrounding environmental and public health stressors at recycling facilities, the construction and demolition (C&D) recycling industry is facing a myriad of new state regulations that companies should be aware of.

Adam Richards, a board certified construction attorney at Berger Singerman in Miami, Florida pointed out that state regulations seem to be in flux regarding the construction and demolition materials.

“Certain states are more proactive, especially those leading the charge with respect to renewable energy. In addition, several states have established minimal percentages for C&D recycling either per project or per capita, but regulatory hurdles still exist because even in some of those states with set minimums, the metric is merely a goal as opposed to a requirement,” Richards said. “Regulating C&D recycling is a good first step, but significant work remains to not only create an environment where recycled materials are sought and utilized, but where C&D recycling is accounted for and maximized project by project.”

Sara Kingman, a senior sustainability engineer with Buro Happold in Los Angeles, has extensive experience with waste management building concepts for zero waste, as well as building-level and masterplan sustainability concepts and the administration of roughly a dozen LEED projects.

As Kingman explained, while regulations continue to be enacted, the C&D recycling industry could use more strategic regulation to improve diversion rates.

“When done correctly, increased regulation has proven to be highly effective,” Kingman said. An example is the City of San Jose’s Construction & Demolition Diversion (CDD) program, which financially incentivizes projects to recover materials from C&D activities. According to the City of San Jose, more than 30 percent of landfill waste is



While regulations continue to be enacted, the C&D recycling industry could use more strategic regulation to improve diversion rates. PHOTO COURTESY OF ADAMO GROUP

construction and demolition debris. The CDD program ensures that at least 75 percent of this waste is recovered and diverted from landfills. The CDD program uses financial incentives to encourage the recycling of C&D material and requires projects to achieve a 75 percent recycling rate. Homeowners, contractors or developers pay a deposit when they apply for a construction permit with the City of San Jose. The deposit is fully refundable if the C&D materials were reused, donated or sent to a certified processing facility.

“Additionally, CalGreen requires a high percentage of recycling of construction materials, and LEED has proven effective at raising the bar for construction material diversion as well,” Kingman said. “But there is minimal focus on demolition waste, which

comprises roughly 90 percent of all C&D waste.”

Currently a hazardous waste “treated wood waste” bill (SB 557) is being proposed in California. This bill would define the term “treated wood” and would require treated wood waste, as defined, “to be disposed of in either a class I hazardous waste landfill or in a composite-lined portion of a solid waste landfill unit that meets specified requirements.” The bill would require any solid waste landfill accepting treated wood waste to meet certain requirements specified in the bill and to manage the treated wood waste in a specified manner. The bill would authorize treated wood waste to be reused only if certain conditions apply, including, among other conditions, that the reuse occurs on-site at the facility at

which the treated wood waste was generated.

While California leads the charge with recycling laws enacted to offset the impact of C&D waste, other states have also initiated regulations surrounding the proper disposal of C&D materials. Recently, New Jersey’s environmental justice bill (S-232) signed by Gov. Phil Murphy garnered much attention among the C&D recycling community. The bill allows the New Jersey’s Department of Environment Protection (NJDEP) to “evaluate the environmental and public health stressors certain facilities may pose on overburdened communities when reviewing certain permit applications.” These facilities can include solid waste facilities, recycling facilities, scrap

See DYNAMICS, Page B7

Specifically designed for large box distribution, slip sheets, foam and foam bedding

ProPAK60S
full eject baler

**54" X 70" Feed Opening,
the largest in its class.**

MAREN
Balers & Shredders
Building customer loyalty since 1962.

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

Majority of firms working on highway upgrades faced cars crashing into their work zone

Sixty percent of highway contractors report that motor vehicles had crashed into their construction work zones during the past year, putting motorists and workers at risk, according to the results of a new highway work zone study conducted by the Associated General Contractors of America and HCSS. In response, officials urged drivers to slow down and remain alert while passing through work zones during the summer driving season.

“The men and women of the construction industry are frequently working just a few feet, and sometimes inches, away from speeding vehicles,” said Ken Simonson, the association’s chief economist and author of the annual survey. “Too often, drivers who are distracted, speeding and/or under-the-influence crash into those work zones, putting workers and themselves at risk of serious harm and death.”

According to the survey results, motorists are in even greater danger from highway work zone crashes than construction workers, Simonson noted. Nineteen percent of contractors participating in the survey experienced crashes that resulted in injury to construction workers. But nearly twice as many firms – 35 percent – reported experiencing a crash in which drivers or passengers were injured.

Drivers and passengers also are three times as likely as construction workers to be killed in work zone crashes. Four percent of contractors in the survey report that construction workers were killed in work zone crashes, while 12 percent of survey respondents report drivers or passengers were killed in those crashes.

“In many cases, vehicle speeding contributes to these crashes in work

zones,” said Steve McGough, president of HCSS. “Utilizing speed cameras with a zero-tolerance policy would go a long way to protect the traveling public and our workforce.”

Simonson noted that the pandemic-induced decline in vehicle traffic appears to have had little impact on highway work zone safety. He noted that only one-third of survey respondents reported any apparent increase in safety because of lower traffic levels. But an equal number of contractors reported that lower traffic levels made conditions less safe, by encouraging many motorists to drive at faster speeds.

The construction economist added that construction firms are taking steps to improve work zone safety, through special training programs, new technology and software made available by firms like HCSS. He added that public officials need to take steps to better protect highway work zones, by boosting police presence and enacting tougher laws and penalties for drivers using their cell phones, for example.

Simonson added that the association was urging motorists, particularly those heading out for summer vacations, to be careful when passing through highway work zones. “Better training and public policies will help, but the ultimate responsibility lies with motorists,” Simonson noted. “The best thing anyone can do to protect themselves and workers is to slow down, put the phone away, and pay attention when they are in a highway work zone.”

The work zone safety study was based on a nationwide survey of highway construction firms the association conducted this April and May. Nearly 300 contractors completed the survey.

OSHA cites two Michigan companies after demolition collapse kills two workers

Investigation finds two companies failed to monitor work-in-progress for safety hazards

When the Killen Power Generation Station’s building collapsed unexpectedly on December 9, 2020, its steel beams fell and killed two workers employed to demolish the facility – a laborer cutting steel and a truck driver preparing to move the scrap metal off-site.

The U.S. Department of Labor’s Occupational Safety and Health Administration investigated the multi-employer project and cited two Michigan companies – general contractor Adamo of Detroit and SCM Engineer Demolition Inc. of East China. OSHA cited both for multiple safety violations on the demolition project, including violations of the general duty clause and failing to inspect the site regularly to detect potential hazards resulting from the demolition process, such as weakened or deteriorated floors, walls and loosened material.

OSHA also determined that the companies allowed employees to continue working under hazardous conditions without adding shoring, bracing, or other means to steady the structure, and failed to train them on identifying potential hazards.

“Some of the most dangerous construction projects are those that involve demolishing buildings,” said OSHA area director Kenneth Montgomery in Cincinnati. “This tragedy could have been prevented if the employer protected their workers with proper planning, training and appropriate personal protective equipment and by complying with OSHA standards.”

OSHA proposed penalties of \$181,724 to Adamo for one willful, repeat, serious and other-than-serious safety violations. SCM Engineer faces penalties of \$12,288 for three serious violations.

Non-residential construction outlays drop to two year low amid supply-chain woes, soaring costs

Nonresidential construction spending in April declined for the fifth straight month to a two year low as demand waned for numerous public and private project categories in the face of lengthening production and delivery times for materials, along with fast-rising prices for many items, according to an analysis of new federal construction spending data by the Associated General Contractors of America. Officials with the association urged the president and Congress to boost infrastructure investments, remove tariffs on key materials and take steps to address production and deliver backups for key construction supplies.

“Both public and private nonresidential spending overall continued to shrink in April, despite a pickup in a few spending categories from March,” said Ken Simonson, the association’s chief economist. “Ever-growing delays and uncertainty regarding backlogs and delivery times for key materials, as well as shortages and record prices, are likely to make even more project owners hesitant to commit to new work.”

Construction spending in April totaled \$1.52 trillion at a seasonally adjusted annual rate, an increase of 0.2 percent from the pace in March and 9.8 percent higher than the pandemic-depressed rate in April 2020. As has been true for the past several months, the year-over-year gain was limited to residential construction, Simonson noted. That segment climbed 1.0 percent for the month and 29.5 percent year-over-year.

Private nonresidential construction spending fell 0.5 percent from March to April and 4.8 percent since April 2020, with year-over-year decreases in 10 out of 11 subsegments. The largest private nonresidential category, power construction, plunged 7.1 percent year-over-year and 1.8 percent from March to April. Among the other large private nonresidential project types, commercial construction (comprising retail, warehouse and farm structures) retreated 1.3 percent year-over-year despite a gain of 0.4 percent for the month. Manufacturing construction rose 0.6 percent from a year earlier and 0.4 percent from March. Office construction decreased 1.6 percent year-over-year but edged up 0.2 percent in April.

Association officials cautioned that a Commerce Department announcement that it intends to double the current tariff levels on Canadian lumber would further undermine nonresidential construction activity. They said the Biden administration should instead remove tariffs on lumber, steel and aluminum and work to ease production and shipping delays. Boosting infrastructure funding, which leaders of both parties have proposed, will also help, the construction officials added.

“The last thing construction workers need is for the Biden administration to double tariffs on lumber,” said Stephen E. Sandherr, the association’s chief executive officer. “Instead of making it even harder to build, the administration needs to ease supply backups, remove tariffs and pass a bipartisan infrastructure bill.”

AR EQUIPMENT SPOTLIGHT

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

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

UPCOMING TOPICS

- AUG Primary Reduction
- SEP Wire Choppers
- OCT Paper/Plastic Balers

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.

Researchers find use for recycled plastic in concrete

Millions of tons of plastic are discarded each day, and for much of it there are few options for conventional recycling. But that material could soon find a new and beneficial use thanks to microbes being harnessed by Montana State University scientists.

In a recent study, researchers in MSU's Norm Asbjornson College of Engineering found that plastic treated with certain bacteria could be added to concrete in significant quantities without compromising the structural material's strength. The study was published in the journal *Materials* in April.

"This is really exciting," said study co-author Cecily Ryan, assistant professor in the Department of Mechanical and Industrial Engineering. "These initial results are very encouraging as we consider potential applications."

Typically, adding plastic or other filler material disrupts the mix of sand, aggregate and cement that gives concrete – the world's most widely used building material – its ability to bind together and support heavy loads. But the MSU team found that using bacteria to coat the plastic with a thin mineral layer allowed it to bind better with the cement. Concrete samples containing up to five percent of the bacteria-treated plastic had virtually the same



From left, engineering faculty Adrienne Phillips, Cecily Ryan and Chelsea Heveran, along with doctorate student Seth Kane and senior Michael Espinal show samples in their lab related to a recent study about recycling microbe-treated plastic into concrete.

MSU PHOTO BY ADRIAN SANCHEZ-GONZALEZ

strength as traditional concrete, according to the study.

"That five percent is really a big increase from what's been allowable so far," said Chelsea Heveran, assistant professor of mechanical and industrial engineering. "We were surprised by how much of an effect there was."

Because concrete is used so widely and in such high volumes, replacing even five percent of it could result in massive reuse of plastic, Heveran noted. And because concrete is so energy-intensive to make, the plastic filler could significantly reduce carbon

dioxide emissions, she said. According to the U.S. Environmental Protection Agency, concrete production is one of the country's largest industrial sources of the climate-altering gas.

In MSU's Center for Biofilm Engineering, the researchers immersed the plastic in a water-based solution containing the harmless bacteria *Sporosarcina pasteurii*, which grows on surfaces to form what's called biofilm. The microbes, left in the solution for 24 to 48 hours, consumed added calcium and urea – a nitrogen-based substance widely used in fertiliz-

ers – to give the plastic a thin, white coating of calcite, the hard mineral that constitutes limestone. The plastic was then mixed into small concrete cylinders that were crushed with specialized equipment to measure their strength.

Although the researchers started with chipped-up No. 1 plastic commonly found in disposable water bottles, after initial success they achieved a similar result with a mix of No. 3-7 plastic, which is used in a variety of containers but isn't accepted at most recycling facilities.

"It's really exciting that we saw this result with the mixture of plastics that typically aren't recyclable," said Adrienne Phillips, associate professor in the Department of Civil Engineering, who has used the same mineral-forming bacteria to seal tiny, hard-to-reach cracks deep underground in leaking oil and gas wells.

The next step is to study the material's long-term durability as well as how the process could be scaled up so that the material could be manufactured in useable quantities, Phillips said. The researchers have partnered with Frank Kerins, associate professor in the Jake Jabs College of Business and Entrepreneurship, to begin exploring commercial applications.

Construction employment in April lags pre-COVID levels

Construction employment decreased from February 2020 – the last month prior to the pandemic – to April 2021 in 107, or 30 percent, of the nation's metro areas, and was stagnant in another 34, according to an analysis by the Associated General Contractors of America of government employment data. Association officials said that construction employment in many parts of the country was being undermined by pandemic-induced project delays, materials price spikes and shortages, and difficulties finding labor.

"It is disturbing to see that nearly one-third of the nation's metro areas had lower construction employment totals in the mild weather and strongly rebounding economy of April 2021 than in the winter of 2020," said Ken Simonson, the association's chief economist. "Ever-growing supply chain bottlenecks and record prices for numerous construction materials threaten to further chill demand for job gains in many metros."

Houston-The Woodlands-Sugar Land, Texas lost the largest number of construction jobs over the 14 month period (-29,300 jobs, -12 percent), followed by New York City (-22,300 jobs, -14 percent); Midland, Texas (-9,800 jobs, -26 percent); Odessa, Texas (-8,000 jobs, -39 percent); and Lake Charles, Louisiana. (7,200 jobs, -36 percent). Odessa had the largest percentage decline, followed by Lake Charles; Midland; Laredo, Texas (-23 percent, -7,200 jobs) and Longview, Texas (-23 percent, -3,400 jobs).

Construction employment was stagnant in 34 additional metro areas, while 217 metro areas – 61 percent – added construction jobs over the pre-pandemic (February 2020) level. Indianapolis-Carmel-Anderson, Indiana added the most construction jobs over 14 months (7,900 jobs, 15 percent), followed by Chicago-Naperville-Arlington Heights, Ill. (6,300 jobs, 5 percent); Seattle-Bellevue-Everett, Washington (6,200 jobs, 6 percent); Minneapolis-St. Paul-Bloomington, Minn.-Wisconsin (5,900 jobs, 8 percent); and Sacramento—Roseville—Arden-Arcade, California (5,300 jobs, 8 percent).

Sierra Vista-Douglas, Arizona had the highest percentage increase (44 percent, 1,100 jobs), followed by Fargo, North Dakota-Minnesota (34 percent, 2,500 jobs); Lawrence-Methuen Town Salem, Massachusetts-New Hampshire. (29 percent, 1,000 jobs); Bay City, Michigan (27 percent, 300 jobs) and Taunton-Middleborough-Norton, Massachusetts (22 percent, 700 jobs).

Association officials called on the Biden administration to take steps to address rising materials prices and growing labor shortages. These steps include removing tariffs on key construction materials like steel, lumber and aluminum. And they include ending unemployment insurance supplements that are providing incentives for qualified workers to stay off payrolls for now.

"Washington has put in place a number of artificial barriers that are

holding back the construction industry's recovery," said Stephen E. Sandherr, the association's chief executive officer. "Washington's tariffs are mak-

ing materials more expensive while its unemployment supplements are making workers more hesitant to return to payrolls."

ADVERTISE in American Recycler FOR FREE!

Place a text classified ad (valued at \$70) for free in American Recycler Newspaper.

We'll even display it on our website!

Sounds awesome, right?

But as always, there must be rules:

- > ONE item per ad
- > ONE ad per company
- > ONE ad per issue
- > PRICE must be included
- > ITEM must be involved in industrial use



To take advantage of this offer, send your ad to us by e-mail to sales@americanrecycler.com, or use our online classified ad form.

www.AmericanRecycler.com
877-777-0043

EQUIPMENT SPOTLIGHT

■ Tub Grinders

by MARY M. THORNTON

maryt@americanrecycler.com

A large piece of machinery, the tub grinder is typically used for land clearing inert debris. Material fed into the tub is ground into a substance that can then be used as a variety of other products – such as mulch or biomass.

CBI, a Terex brand, manufactures portable and stationary wood grinders that are available through their global distribution network. The firm also manufactures the mobile, Magnum Force 6400CT horizontal grinder, which includes a solid steel rotor. It is an extreme duty machine, engineered for resilience and high production when grinding contaminated demolition debris, railroad ties, whole trees, pallets, storm debris, shingles, logs, mulch, slash and stumps.

“Built from a fully welded and line bored hog box, this yellow monster offers superior performance when processing high amounts of tough material. The revolutionary cassette-style, clam shell design allows end-users to quickly swap out rotors. Operators can switch from grinding to chipping in half the time, and this allows users to accept jobs with various material demands. Four interchangeable rotors give the 6400CT the versatility needed for a variety of applications,” stated Joe Gallagher, marketing manager.

CBI’s product line includes wood grinders, industrial wood chippers, flail debarkers, screens, stacking conveyors, stationary systems, and attach-



Precision Husky

ments for composting, forestry, biomass recovery, and wood-waste processing. Gallagher explained, “All CBI machines are designed to reduce a customer’s total cost of ownership and maximize production. After decades of improvement to the best machines on the market, it’s no secret why CBI customers find success.”



CW Mill Equipment Co., Inc.

can’t get with a wheeled machine – such as grinding in wet weather or soft terrain. Tracks eliminate the need for an extra truck to move the grinder from pile to pile at a job site and this saves time and increases production. A HogZilla track machine allows for one man operation and helps with cleanup around and under the grinder, further reducing maintenance. A CAT engine and torque converter drive are standard in our tub grinders, HTC-1464T and HTC-1462T and every grinder is custom built to each user’s specs.

“Processing construction and demolition (C&D) waste can be challenging for grinder users, as they strive to adhere to the government regulations that involve those materials can be ground and/or recycled. Sorting material may also be necessary, which can increase the need for additional labor resources. Recycling C&D material with a HogZilla is especially helpful because the machine is so easy to move around a job site and materials can then be conveyed directly into a hauling vehicle. Reducing the volume of unwanted materials at a C&D setting certainly results in using less landfill space and can aid in long term building project savings. Wood that results from on-site C&D recycling can be used to manufacture engineered-wood products like furniture, mulch, compost and more. CW Mill has manufactured track mounted tub grinders for 20 years but we’re always looking ahead, to identify new ways we can improve work processes for our customers.”

Precision Husky Corporation is a 57 year old international company that manufactures waste wood processing equipment for the recycling, sawmill and forestry industries. From whole tree chippers and flail debarkers now

A HogZilla tub grinder on tracks is one of the most rugged heavy duty track mounted machines on the market, as customers of the company will attest. Jason Anderson with Missouri Organic, said, “Their service is amazing, but also, their grinders are built stronger than anything else in the market.”

Tim Wenger, CW Mill vice president and HogZilla sales manager, commented, “Our customers have seen that a HogZilla on tracks is unparalleled in production and mobility. The machine has many advantages you



CBI

MANUFACTURERS

CBI

Joe Gallagher

603-257-1276

www.terex.com/cbi

CW Mill Equipment Co., Inc.

Tim Wenger

785-284-3454

www.hogzilla.com

Diamond Z

Tristan Kruger

800-949-2383

www.diamondz.com

DuraTech Industries Intl. Inc.

Jamie Kramlich

701-252-4601

www.duratechindustries.net

Jones Manufacturing Co.

Rod Giese

402-528-3861

www.mightygiant.com

Morbark Inc.

Jeanne Maddox

800-831-0042

www.morbark.com

Peterson Pacific Corp.

Ron Earl

800-269-6520

www.petersoncorp.com

Precision Husky Corporation

Steve Briscoe

205-381 7189

www.precisionhusky.com

Vermeer Corp.

Jeff Bradley

641-621-7481

www.vermeer.com

W.H.O. Manufacturing Co.

Jon Littler

719-336-7433

www.who-mfg.com

in use in Australia to stationary, electric 5200 tub grinders for a client in Japan, Precision Husky has manufactured equipment now used in 120 countries worldwide. Precision offers six different models of tub style grinders and three horizontal grinder

See TUB GRINDERS, Page B6



Shredders for C&D, MSW, wood, aluminum, and more!

NO wrapping!
NO jams!



VAN DYK
recycling solutions



scan to watch!

www.vdrs.com

203-967-1100

BALANCE PAYMENTS WITH FLEET UTILIZATION

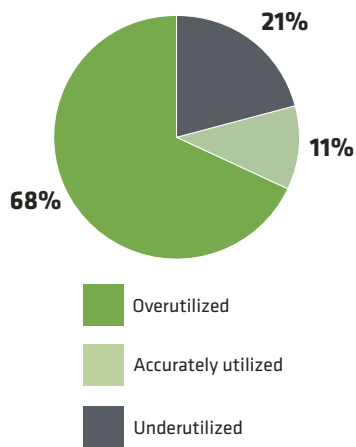
Did you know that 90% of equipment owners get their leasing packages wrong?

Most owners overutilize the contracted hours in their equipment lease, and pay big penalties at the end of their term.

Many more owners underutilize their machines, and finish the term with paid-for hours that they never used.

Only 11% get the right balance of payments made and hours used.

Actual vs. Contract Usage



Now there's a better way

SENNEBOGEN Capital brings you the industry's first **Lease By The Hour**® plan.

- Eliminate the risk of overtime penalties during busy work periods
- Eliminate high monthly carrying costs during slow work periods

Ask your **SENNEBOGEN dealer** about the only leasing plan that automatically balances your payments and production to deliver the best return on your equipment investment.

BEYOND THE MACHINE



WE ARE ON A MISSION to maximize your uptime and reduce your Total Cost of Ownership.

You trust SENNEBOGEN for industry-leading productivity, safety, and efficiency. Now think "beyond the machine" with life-long SENNEBOGEN support.



PEOPLE

Expert application support
Innovative financing



PARTS

Local in-stock parts
Prepackaged service kits



SERVICE

Factory-trained technicians
Free technical training



Learn more about our commitment to our customers

www.sennebogen-na.com | +1-704-347-4910



PROVEN UPTIME WITH UPTIME KITS

SENNEBOGEN, in keeping with their philosophy to maximize uptime, has created Uptime Kits. Whether you are a service technician in-house or on the road, these kits have everything you need for every service, maintenance and PM task in one place. They were created to save you time and money. Managing hundreds of related service parts, from belts and nuts to O-Rings and special tools becomes easy with a single part number to order and stock.

They are:

- Easy to order and easy to stock
- Packed with job specific components and tools
- Ideal for stocking service shops and trucks

Choose from the following kits:

- Auto Lubrication Kits
- O-Ring kits
- Electrical Kits
- SAE Flange Kits
- Fitting Kits
- Plug & Connector Kits
- A/C Service Kits



And the best thing is that these kits are custom-built to match your machine model and series. Count on SENNEBOGEN to meet your needs in the field or in-house. For more information on Uptime Kits, scan the QR code or talk to your dealer.

NEW PRODUCT SHOWCASE



ACTION INTRODUCES NEW SEPARATION EQUIPMENT

Action Vibratory Equipment has added an innovation to its line up of screeners and separators by combining the strengths and benefits of the SUB-PAN FREE™ TAPER-SLOT® Screen with the versatility and effectiveness of our DENSE-OUT® Vibratory AIR Separator. This makes it possible to screen by size and separate by density in one machine.

By removing the sub-pan under the screen, classified fractions discharge directly into a bunker or onto a take-away conveyor. The SUB-PAN FREE is effective in wet and/or sticky applications, eliminating material build up, wear and related sub-pan maintenance items.

Action Vibratory Equipment

2800 Hayes Street
Newberg, OR 97132
503-537-1111

www.actionconveyors.com



AMOS MFG OFFERS 2 AND 4 SHAFT METAL SHREDDERS

The 125 HP Dual Shaft Shredder offered by Amos Mfg features a low speed, high torque cutter design that shreds metal with ease and efficiency, reducing the particle size and providing consistency for further processing and more efficient handling. This also allows for an increase in the density of scrap material per dumpster, cutting costs associated with otherwise frequent and premature waste transportation.

Amos shredders are custom-built, based on the requirements of the application. Each solution will be tailored to accommodate the feeding, shredding and conveyance of material.

Amos Mfg., Inc.

PO Box 177
Alpena, MI 49707
888-270-6879

www.amos-mfg.com



EAGLE INTERNATIONAL'S PUNCH CUTTER III FOR OTR DOWNSIZING

Eagle International has developed a new machine in their portable OTR downsizing equipment line: The Punch Cutter III.

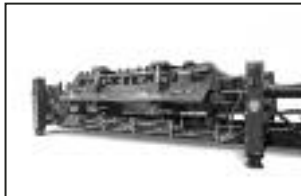
This new product is designed for the off-the-road (OTR) tire recycling market and cuts away the sidewalls from OTR tires up to 70/70-57. The tire is loaded and lifted into place where a 10" blade punches through the thick rubber on the outside edge of the tread.

Recyclers can expand their capabilities with the Punch Cutter III when used in conjunction with the OTR Downsizing System from Eagle International.

Eagle International

825 Main Street
Lyons, NE 68038
402-687-2655

www.brehmer.com



HARRIS LAUNCHES THE GPS SERIES PREDATOR SCRAP BALER/LOGGER

In partnership with G.P.S. Great Scrap Processing Solutions, Harris will produce the Harris-GPS Series Predator. Available with a 9'2" box opening x 16'5" (5.0 model) or 19'8" (6.0 model) box lengths.

It features an innovative three arm compression system which maximizes box folding speeds and bale/log weights and a best-in-class frame, providing unsurpassed strength, compression force and durability.

The Predator is designed to process metal scrap, automobile shells, sheet iron, cuttings, white goods, hms #1, hms #2 and stainless.

Harris Waste Management Group

315 West 12th Avenue
Cordele, GA 31015
800-373-9131

www.harrisequip.com



METSO INTRODUCES LARGER, EFFICIENT INCLINE SHEAR

A new, larger incline shear now available, the Metso NIS 1620-11 BL100, produces up to 1,760 tons of shearing force with a single, rake angle, shear blade design and is equipped with higher pre-compression forces for denser scrap production.

With shearing rates up to 60 tons/hour, it incorporates many other features for high efficiency shear operation and can process large bulky scrap, over length scrap and all general scrap. Metso NIS shears are capable of full automatic operation on most products.

Metso Metal Recycling

11451 Jones Maltsberger Rd
San Antonio, TX 78216

210-491-9521

www.metso.com

ABC members invested \$1.3 billion in construction workforce education in 2020

According to the results of the Associated Builders and Contractors (ABC) 2021 Workforce Development Survey, ABC contractor members invested \$1.3 billion in workforce development initiatives in 2020, providing craft, leadership and safety education to 500,000 course attendees to advance their careers in commercial and industrial construction.

Safety education accounted for 71 percent of the total workforce investment as per-person spending doubled, revealing an elevated focus on worker education, safety and total human health during the COVID-19 pandemic.

"America's economic engine is fueled by a workforce equipped with durable and transferable skill sets, and ABC members are dedicated to investing in essential safety education and professional development for craft and management professionals," said Greg Sizemore, ABC's vice president of health, safety, environment and workforce development. "Apprenticeship and career technical education provide the right tools to our nation's workforce to not only build the places where Americans live, work, heal, play and learn, but also cultivate long-lasting and rewarding career opportunities."

Other key findings from the survey include:

- ABC members invested an average of 8.4 percent of payroll on workforce development in 2020, up from 7.9 percent in 2019.

- Safety education accounted for 71 percent of total annual workforce education spending with the highest per-person investment, averaging \$2,369 per employee, up from \$1,147 in 2019.

This was due primarily to repeated safety trainings required to comply with restrictions and keep workers safe during the COVID-19 pandemic.

- The percentage of contractor members reporting a severe labor shortage declined 3 percent between 2019 and 2020, while those reporting a moderate labor shortage increased 5 percent.

- Compared to 2019, general and construction management contractors have increased their share of the total workforce development investment, growing to 58 percent in 2020 from 21 percent in 2019.

- Women in management or supervisory roles ticked up to 17 percent of the workforce in 2020 from 16 percent in 2019.

- Approximately 70 percent of contractors reported partnerships with high school and college career and technical education internship programs.

ABC and its members are working hard to recruit, educate and upskill the nation's future construction workforce through a network of more than 800 apprenticeship, craft training and safety programs across the country. In 2021, construction companies will need to hire 430,000 more workers than they employed in 2020, according to an ABC analysis of U.S. Bureau of Labor Statistics data. Every \$1 billion in extra construction spending generates an average of at least 5,700 construction jobs.

Industry consulting firm FMI conducted the 2021 Workforce Development Survey to quantify the scope of workforce development initiatives by ABC member contractors.

Tub grinders

■Continued from Page B4

sizes. The tub style grinders are offered as trailer or track mounted, or electric powered, stationary or portable machines. Horizontal grinders are offered as trailer or track mounted, or stationary or portable electric powered units.

"Our ProGrind tub grinder models range from the 250 hp ProGrind 900 to the 1,200 hp ProGrind 5200. The 5200 and our ProGrind 4000 are available with or without a Husky Knuckle Boom Loader attached. An attached thrown-object deflector shield is standard on all of our tub grinders and all have the option of our remotely controlled thrown-object tub cover. Our horizontal tub grinder line includes the ProGrind H3045 with 520 hp, the H3060 with 600 to 755 hp, and the H4060 with up to 1050 hp. All Precision ProGrind horizontal grinders are easily converted to chippers by changing the standard hammermill to a 2 knife or 4 knife chipper head. The chip-

per heads are capable of producing chips down to 3/8". Precision grinders have always been known for their ease of maintenance and reliable operational controls. Our Husky tub and horizontal grinders are widely used by land clearing contractors, governmental agencies, landfill operators, composting processors and sawmills around the world. The machines are used for processing yard, construction and forestry waste, pallets, and storm cleanup. The processed material is then used to manufacture compost, fuel, mulch and more," noted Steve Briscoe, ProGrind Sales Manager.

Briscoe noted that in keeping with increased emission standards, Precision Husky also offers electric powered equipment. Not only are electric power grinders available, complete bark and chip manufacturing plants are options as well. With founder, Bob Smith, and his son Scott Smith leading the company, the whole Precision Husky team is eager to continuously serve the markets that benefit from their products and expertise.

Dynamics

■Continued from Page B1

metal facilities, landfills, medical waste incinerators and transfer stations.

The bill allows the NJDEP to deny permits to entities if they find a significant level of impact on an overburdened community.

In July 2020, the Institute of Scrap Recycling Industries (ISRI) submitted a written testimony to the New Jersey Assembly Environment and Solid Waste Committee in opposition to the New Jersey environment justice bill.

Jarred Dorfman, president of ISRI's New Jersey Chapter, indicated support of the concept of responsible environmental justice legislation, but noted ISRI is concerned that, "without amendments, S-232 will harm New Jersey and its recycling goals by imposing onerous restrictions and costs on recycling facilities that need to renew their NJDEP permits or are looking to invest in new, environmentally-friendly equipment, expand operations, or even develop new facilities that incorporate state-of-the-art technology, including for pollution abatement."

Dorfman went on to say, "the legislation specifically calls out recycling and scrap metal facilities while not citing other common industrial and commercial operations. Most importantly, by targeting recycling while at the same time promoting the growth of recycling through simultaneous efforts in the New Jersey legislature, such as with S-2515, the legislature is creating an impossible situation for the recycling industry in the state."

From New Jersey to Oregon to California, C&D recycling regulations that are emerging continue to keep recycling companies on their toes. And while it can be challenging to keep up with all the changes in so many state jurisdictions, the Northeast Recycling Council created a helpful list of all statewide disposal bans and mandatory recycling guidelines in the country. The list is regularly updated, most recently in October 2020.

"Interestingly it is often the municipalities that impose additional requirements. Seattle's Salvage Assessment requirement and San Jose's CDD recycling incentive program, come to mind," Kingman said. "As does New York City's source-separation requirement."

As part of its salvage assessment program, Seattle requires that construction and demolition permit applicants complete a Salvage Assessment for whole building demolition projects and projects that involve alterations valued at more than \$75,000 and/or where the area of work is greater than 750 sq.ft.

Biggest Concerns

Some leading C&D waste issues pertinent for both waste and recycling companies as well as governmental entities include dissimilar regulations by jurisdiction, high contamination rates, wasteful use of raw materials, landfill emissions generated due to improper processing at the end of the material lifecycle, unnecessary reliance

on byproducts of coal production, the lack of any infrastructure or regulations to support reusing salvaged construction materials, and the large amount of carbon associated with the extraction, transport, and processing of raw materials.

The types of materials being used or disposed within the C&D environment is also impacting the recycling industry. "The primary material of concern is gypsum," Kingman said. "When landfilled, wallboard breaks down anaerobically and produces hydrogen sulfide, which is toxic, corrosive and even flammable. Over the past decade, states have increasingly banned the landfilling of wallboard. Building Product Ecosystems, founded by Amanda Kaminsky, is a good example of a company striving to close this loop. Gypsum can be recycled indefinitely into new wallboard, so Building Product Ecosystems is focusing on source separation, processing, and remanufacturing of scrap gypsum."

Kingman pointed to 2018 EPA data that indicates that a majority of concrete waste nationwide is reused as aggregate. Likewise, a majority of asphalt pavement and metal waste is reused in manufactured products.

"However, these positive signs are mitigated by the fact that the majority of wood, gypsum drywall, asphalt shingles and brick and clay tile waste continues to go to landfill," Kingman said. "There are regulations that could positively impact individual municipalities, but at the national level there is still a lot of room for improvement in construction and demolition waste diversion rates."

A Growing Industry

Increasing regulations aside, according to Richards, the recycling of C&D materials has created hundreds of thousands of jobs nationally, and is viewed favorably by environmentalists due to the conservation of landfill space, the reduction in disposal facilities, the extraction and consumption of virgin resources and production of new materials.

"The regulations have further bolstered the industry by reducing transportation costs, and incentivizing charitable donations as well as the avoidance of certain purchase/disposal costs," Richards said. "And these regulations are helping the industry grow, albeit slowly. For example, only a handful of recyclers exist in the South Florida market despite development booming over the last decade and not slowing down throughout the area."

Because LEED, CalGreen and other standards only focus on construction waste, Kingman said the industry is only looking at the tip of the iceberg.

"Thankfully, the circularity movement has begun to shift focus to demolition waste. For example, several carpet manufacturers such as Mohawk Group and Interface have implemented material takeback programs at end-of-life," Kingman said. "This needs to become more widespread."

At the same time, Kingman stated that designers, architects and engineers must design to allow for deconstruction, rather than demolition.

"Likewise, government regulation can aid the transition by requiring certain products to be separated prior to deconstruction. This would encourage more manufacturers to create takeback programs, as separation results in less contamination, thereby allowing the material to be reused in the manufacturing process," Kingman said. "The market will further drive manufacturers to implement takeback programs, as reusing materials will reduce their costs."

Another piece of regulation that would facilitate C&D waste reduction would be increasing the cost to landfill materials.

"This would drive contractors to pursue alternative options, which would drive the market to develop those options, whether recycling facilities, storage facilities for salvaged materials, etc.," Kingman said.

Under a progressive administration, it is possible that the Environmental Protection Agency could advance C&D recycling regulations at the federal level, imposing minimum standards for all U.S. jurisdictions.

"Regardless of regulation, there are other drivers of needed change that leaders in the recycling industry can recognize, encourage and support," Kingman said. "This includes increased stringency around C&D recycling under sustainability frameworks such as LEED; accelerating public awareness of – and thus market demand for – waste reduction; and cost-savings opportunities associated with reducing waste, carbon, and raw material extraction."

Richards said that C&D recycling regulations will continue to evolve in the future by adjusting certain metrics (i.e., percentage of C&D debris that must be diverted from a project, whether public or private), responding to cost and environmental considerations, and perhaps gaining more traction and popularity, given the rising material costs currently plaguing the construction industry throughout the country.

"Recycling companies must pay attention to the ever-changing landscape in their particular state," Richard said. "This includes requirements as opposed to goals. They should seek to collaborate with city or state officials, as well as developers and contractors towards maximizing C&D recycling for any particular project."

Department of Labor adds to advisory committee

U.S. Secretary of Labor Marty Walsh has appointed 15 individuals to serve as members on the Advisory Committee on Construction Safety and Health, which provides advice and assistance to the assistant secretary on occupational safety and health in construction standards. Members will serve two year terms.

Five employee representatives:

- Cheryl M. Ambrose, United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the U.S. and Canada

- Christina Trahan Cain, North America's Building Trades Unions

- Wayne J. Creasap II, International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers

- Ryan Papariello, Laborers Health and Safety Fund of North America

- David Wysocki, International Masonry Training and Education Foundation

Five employer representatives:

- Kevin Cannon, Associated General Contractors of America

- Julie Carter, Roy Anderson Corp.

- Fravel E. Combs, M.A. Mortenson Company

- Greg Sizemore, Associated Builders and Contractors

- Wesley L. Wheeler, National Electrical Contractors Association

Two public representatives:

- Christopher Fought, Merck

- Ronald Sokol, Safety Council of Texas City

Two state government representatives:

- Christopher Scott Mabry, North Carolina Department of Labor Occupational Safety and Health Division

- Charles Stribling, Kentucky Labor Cabinet Department of Workplace Standards

One federal government representative:

- G. Scott Earnest, National Institute for Occupational Safety and Health

Christina Trahan Cain will serve as the ACCSH chair.

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

EXPERIENCED IN SOLID WASTE & RECYCLING BUSINESS VALUATIONS

What's Your Business Worth?



VZN Group, LLC

419-882-1886

www.vzncpa.com

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

John Monaghan, CPA, CVA

Powercat Copper Recovery System

System Includes:

Powercat A System | Powercat C System

Screening Machine SM320



DADE

Auctions

Inquire at:

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

Register Today!

FEATURED BUY NOW LISTINGS



Complete Wendt Non-Ferrous Sort System.
Everything is in great condition, already dismantled.



Dragon Dryer Rotating Biosolids Dryer. Indirect heat dryer. Previously used on rubber chips.



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



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



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



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



2018 LeFort SB 660 Ton Shear.
Only 3,500 hours! In very good shape.



Fairbanks Morse 3,000HP Motor. 869 RPM.
Stored indoors, but hasn't been turned.



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

www.DADEAuctions.com • 844-333-3030