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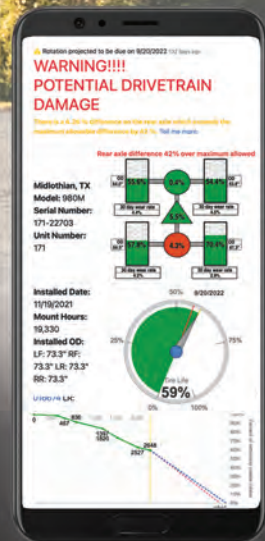
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24



COVER STORY

BIGGER, FASTER, STRONGER

EGA Spectro Alloys of Minnesota continues to expand its capabilities, allowing it to consume a wider range of postconsumer aluminum.

features

30 A WINTER TO REMEMBER

After recycled steel prices spent 2024 in the doldrums, supply-related factors contributed to a spike in values in the first quarter of this year.

34 ALL ABOUT THE EXECUTION

Data gathering and consistent communication with community leaders and residents are essential to the rollout of municipal recycling collection programs.

38 CREATING A GREENER GAME DAY

WM is building partnerships with sports leagues, teams and venues to advance recycling and sustainability initiatives.



30



38

ON THE COVER

PHOTO COURTESY OF EGA SPECTRO ALLOYS

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departments

EDITOR'S LETTER	6
NEWSWORTHY	8
FERROUS	14
NONFERROUS.....	16
PAPER.....	18
PLASTICS.....	22
EQUIPMENT REPORT	44
PRODUCT SPOTLIGHT.....	46
CLASSIFIEDS	47
AD INDEX.....	48
FRESH PERSPECTIVE.....	50

8



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Starting small makes a big impact

The argument against recycling isn't new, but more and more claims about its merit—or lack thereof—continue to surface as the pollution crisis in the United States understandably has people asking, “What's the point?”

A great part of my job at *Recycling Today* is getting to travel to industry events and meet the people who know the value of recycling and work hard to make the process more efficient and sustainable.

I recently had the opportunity to attend the Carolina Recycling Association's 35th Annual Conference & Trade Show in Wilmington, North Carolina. While some articles continue to tout the “myth” of recycling, I personally met a number of folks whose efforts to promote recycling have made a real and notable impact in their communities.

For example, I attended a session featuring a presentation from Megan Tabb of Synergy Electronics Recycling, a Madison, North Carolina-based end-of-life electronics recycler that processes plastic from discarded devices and uses the material to create plastic composite board for various building applications.

On a more local level, I also heard from engineer Mike Brinchek of Raleigh, North Carolina-based engineering firm Smith Gardner, who discussed the impact of shrinking landfill capacity on rural communities, as well as Mark Bivins, solid waste manager for Lincoln

County, North Carolina, who talked about his experience purchasing compactors for the county's eight convenience sites.

I can't forget to mention all the attendees representing colleges and universities across the Carolinas who spent their evenings sorting trash and recyclables generated at the Wilmington Convention Center during the event.

Sure, maybe it's hard to see the point of those efforts when imagining the overwhelming pollution in our oceans and waterways, for example. But those recently purchased compactors in Lincoln County have resulted in fewer truck trips, reducing hauling fees and emissions, as well as better involvement from residents in recycling, according to Bivins. It's a small-scale example by all accounts, but its impact is huge—and real.

As we see results from similar community recycling and sustainability efforts across the U.S., maybe we can help naysayers reframe the question from “What's the point?” to “How can I help?”

We can't solve the pollution crisis overnight, but our local efforts can make a big difference. **RT**



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■ PLASTICS

IRG cancels plans for Pennsylvania PRF

A planned \$300 million plastics recycling facility (PRF) to be built in Erie, Pennsylvania, has been canceled by the Erie-based International Recycling Group Inc. (IRG), according to an *Erie Times-News* report.

IRG Erie announced plans for a PRF project in August 2020.

In 2022, IRG purchased 25 acres of land in Erie that previously hosted a Hammermill Paper site. The 350,000-square-foot PRF had planned to mechanically recycle polyethylene terephthalate, polypropylene and high-density polyethylene, converting roughly 160,000 tons of the postconsumer plastic into 100,000 tons of recycled plastic pellets and flakes per year.

In 2022, IRG founder and CEO

Mitch Hecht told *Recycling Today* all inventory management would occur under one roof. The PRF was designed to accept all forms of postuse plastics, including cups, lids, tubs and other single-use plastics sourced mainly from material recovery facilities. In addition to bale-breaking and sorting equipment, the site would use shredding, washing and pelletizing equipment.

IRG got financial backing from several sources to aid in the facility's construction, including a combined \$9 million investment from Erie Insurance and the Erie-based Plastek Group. In 2022, the company was offered a \$5 million Redevelopment Assistance Capital Program grant and a \$509,000 Rail Freight Assistance Program grant from

the state. It also reported receiving a \$300,000 loan from the Erie County Redevelopment Authority that year.

In July 2024, IRG was selected for a conditional commitment for a loan guarantee of up to \$192 million from the Department of Energy Loan Programs Office that would help finance the PRF. According to the *Erie Times-News* report, the loan was never finalized, and the remainder of the funds needed for construction were not raised.

In a statement on behalf of IRG summarized in the report, the company says it encountered fundraising challenges, among other factors, such as “recently announced tariffs on materials and on equipment from Europe not made in the U.S., resulting in expectations of substantially higher project development costs than anticipated, as well as difficulties in securing long-term purchase agreements for recycled materials from plastics manufacturers and consumer product groups, many of whom are cutting back on sustainability pledges.”

The Erie Regional Chamber and Growth Partnership (ERCGP) put out a statement indicating it is “frustrated” by the growing financial pressure given the economic uncertainty being created at the federal level that factored into the decision not to move forward with the PRF.

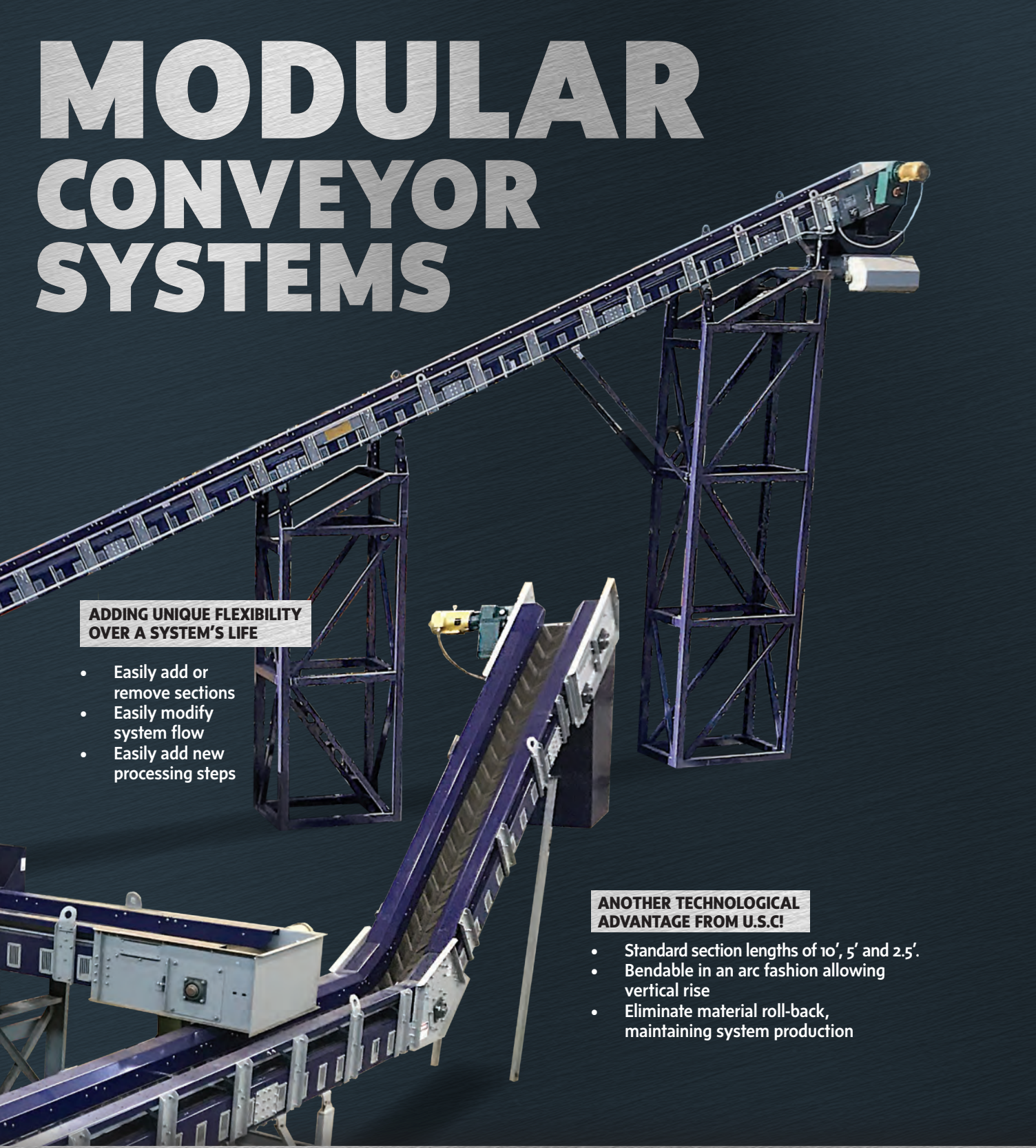
“We recognize the significant economic opportunities it could have brought to Erie,” says Brandon Mendoza, CEO of ERCGP.

“This project had significant support at the state and local level, across public and private sectors, and to see it pulled is a significant loss.

“As always, we remain committed to advocating for sustainable investment and working to attract new business opportunities, but the opportunity cost to develop such an enormous project with all pieces aligned to end like this is a disappointing outcome.”

The ERCGP states that it plans to reach out to the governor's office to talk about keeping IRG's \$5 million RCAP investment in Erie for other projects and also says it is in contact with local legislators regarding the project.

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In Memoriam: Danny Rifkin

Danny Rifkin, founder of MetalX and a scrap industry veteran, died April 1 at age 70, surrounded by family.

A native of Fort Wayne, Indiana, Rifkin was a well-known and respected business leader, entrepreneur and philanthropist.

He graduated from Elmhurst High School in Fort Wayne in 1972, then studied at the Wharton School of Business at the University of Pennsylvania before earning his degree from the University of Miami in 1977.

Rifkin began his career at OmniSource Corp. in Fort Wayne, eventually becoming president and CEO of the scrap metal recycling company that his family established in 1943. He also was a founding member of Steel Dynamics Inc. (SDI), also based in Fort Wayne.

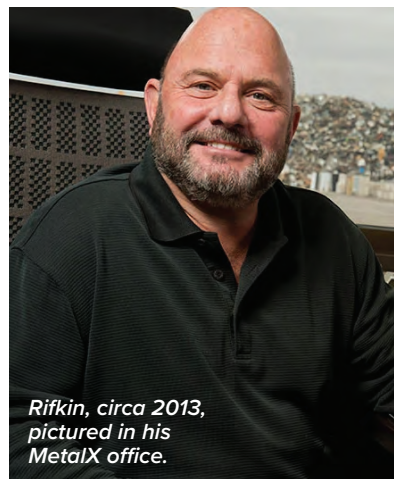
After SDI acquired OmniSource in 2007, Rifkin held several roles, including

executive vice president, president and chief operations officer of the company's Metals Recycling Segment, along with serving as a board member.

In 2008, after leaving SDI, he launched North River Capital, a private equity firm based in Fort Wayne. In 2012, Rifkin founded MetalX LLC, also based in Fort Wayne, with his son, Neal.

The Rifkins sold MetalX's ferrous scrap business in late 2021 to Australia-based BlueScope and began to focus on nonferrous scrap.

"Our plan is to execute a growth strategy focused as a nonferrous company," Rifkin said at that time. "We have been working on developing a more extensive nonferrous strategy. ... We see tremendous opportunity for the future in the nonferrous segment, especially related to copper and aluminum."



Rifkin, circa 2013, pictured in his MetalX office.

"So, as the world moves towards more electrification and lighter weight, and as the use of copper and aluminum becomes more prevalent in everything, we see that as an outstanding opportunity for long-term growth for the company."

In late 2022, MetalX acquired the assets and business of secondary aluminum melter SRT Aluminum in Wabash, Indiana, which converts aluminum scrap into specification remelt scrap ingot in sow and ingot form. The company also selected a 190-acre site in Defiance, Ohio, in early 2024 to construct an aluminum recycling campus, the plans for which include an aluminum slab manufacturing plant, a scrap shredding and advanced sorting facility and a dedicated logistics hub, in partnership with Louisville, Kentucky-based Manna Capital Partners.

Rifkin's philanthropy efforts included founding and leading the Fort Wayne Center for Learning, helping children with learning differences access support. He also served as a trustee of the Rifkin Family Foundation, which has supported many causes close to the family's heart.

Rifkin supported Jewish life and education, including his local congregation, the Jewish Federation of Fort Wayne and the preservation of Holocaust memorials. His commitment to these causes was deeply rooted in his values, identity and desire to give back to the institutions that shaped him and his family, according to a news release from MetalX.

"Danny will be remembered for his vision, generosity and lasting impact—in business, in community and in the hearts of all who knew him," the company says.

Photo by Jeff Bell

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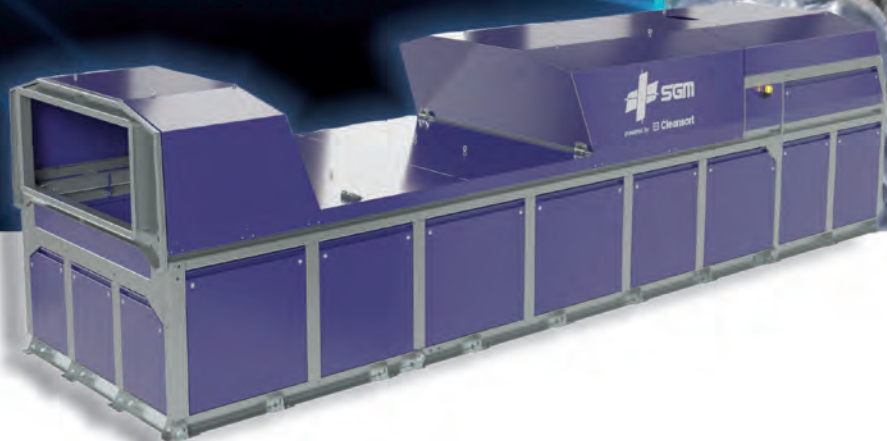
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5 QUESTIONS ABOUT BOOSTING CONVERTER BUYING SUCCESS



1 How does accurate grading help recyclers avoid overpaying and maximize converter profitability?

Grading catalytic converters accurately is critical to controlling costs and boosting margins. Recyclers risk overpaying or underpricing units without understanding the expected precious metal content in each converter. A standardized grading process, supported by employee training and up-to-date market indicators, allows for consistent, data-driven purchasing decisions.

2 What partnerships support both efficient purchasing and scalable converter processing?

Strategic partnerships streamline operations and boost volumes. Partnering with trusted auto dismantlers, scrap recyclers or tow yards secures a steady supply of converters.

On the processing side, working with a converter processor that offers flexible lot sizes, fast turnaround times and transparent assay reports allows recyclers to scale operations without sacrificing efficiency. Strong partnerships often come with added benefits, too, such as pricing support, logistics solutions and shared market insights.

3 How can recyclers use technology and processes to reduce losses and improve converter management?

Theft and inventory shrinkage are common threats in converter recycling, but recyclers can leverage technology by using secure inventory management software, which enhances tracking and accountability.

Combining technology with strong internal processes, such as secure storage areas, handling protocols and frequent audits, reduces the risk of theft and misplaced material.

4 What hidden costs should recyclers watch for when selling converters?

Hidden costs significantly can impact overall converter returns. While a processor's payout may look competitive at first glance, fees for shipping, handling, lot minimums, long settlement times or vague assay processes can quietly reduce profits. Recyclers should look for transparent partners who clearly outline their fee structures, offer fair terms and provide detailed reporting.

Understanding the full cost of each transaction and not just the price per unit ensures recyclers retain more value from every load.

5 How can recyclers use market trends, forecasting and hedging to protect and grow profits?

Platinum, palladium and rhodium prices can be volatile, making it essential for recyclers to stay informed on automotive industry trends, mining supply and global market shifts. Staying current enables informed buying and selling decisions.

Incorporating hedging strategies—such as working with a processor who can lock in market prices when shipping—helps minimize the risk of sudden market dips. Partnering with companies like PMR Inc. that offer real-time pricing, small-lot hedging, market insights, historical data and customized buying and selling tools empowers recyclers to stay ahead of the curve and maximize their returns.



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MARKET AWAITS NEXT DIRECTION

THE UPWARD MOMENTUM SEEN IN THE VALUE OF RECYCLED STEEL in the first quarter stalled in April. The bull market was not entirely enjoyable for scrap processing firms, since a lack of supply throughout the winter coupled potentially higher margins with lower overall volumes.

On the scrap generation front, recyclers are keeping an eye on their scales and industrial buying volumes to determine how a flurry of policies from the Trump administration is affecting material flows this spring. U.S. processors and traders doing business in Canada and Mexico might be the most nervous.

Two processors—one near the Canadian border and the other with facilities in the U.S. Southwest—have used words like “chaos” and “havoc” when expressing concerns to *Recycling Today* about tariff effects on their inflows.

A March report from the *Detroit Free Press* indicates Warren, Michigan-based automotive components supplier Paslin had an “uncomfortable meeting” with a Canadian customer regarding President

Donald Trump’s proposed 25 percent tariff on automobiles and auto parts.

“I’m literally stuck in limbo right now,” Paslin CEO Joe Perkins tells the *Free Press*. “Everything is dead in the water until the rules are more clearly understood. Are these tariffs going to stick? Who knows?”

According to recycler Ken Schutt of Detroit-based Kimmel Scrap Iron & Metal Co., the sentiment is widespread in the Motor City. He says his contacts in the automotive sector have been telling him that for the last 90-plus days not much business or work is in the pipeline beyond March. “That is scary,” Schutt says.

The confusion along the U.S.-Mexico border has been similarly portrayed.

“If the [scrap] generator doesn’t declare [imports] appropriately as the right harmonized tariff schedule code of scrap, then it may trigger a potential tariff. There’s a lot more questions than answers right now,” Patrick Merrick, president of El Paso, Texas-based W. Silver Recycling Inc.,

“**Everything is dead in the water until the rules are more clearly understood. Are these tariffs going to stick? Who knows?**”

— Joe Perkins, CEO, Paslin

tells *Recycling Today*.

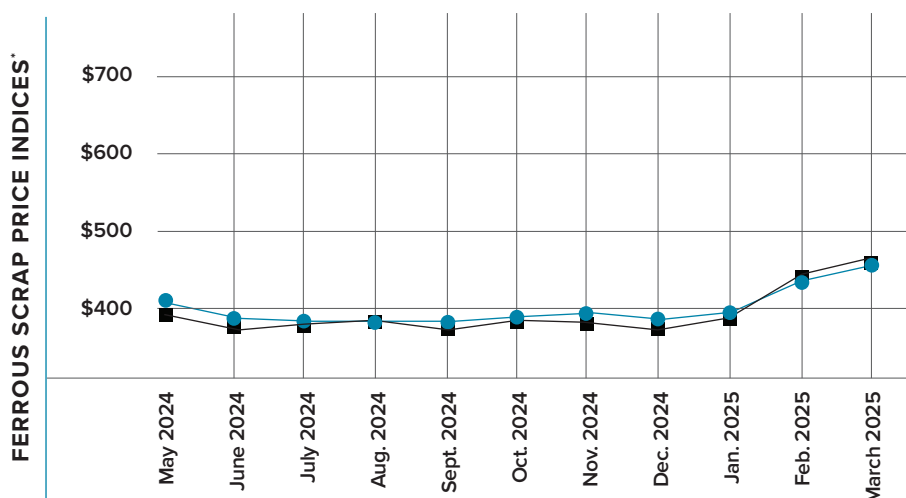
Obsolete scrap generation could be considered less reliant on cross-border trade compared with prompt scrap purchases. That being the case, processors will be rooting for robust construction and demolition activity and the willingness of car owners to trade in older vehicles, though some economic indicators in those sectors are mixed at best.

The Associated General Contractors of America, Arlington, Virginia, reports that construction firms continue to hire in that sector, with contractors adding a net number of jobs in 27 states in February compared with the prior month.

It’s been speculated as to how automakers and those purchasing vehicles will behave if Trump’s 25 percent tariffs on imported vehicles and components are as comprehensive as portrayed.

The 25 percent rate can be scaled back for transactions involving trade agreement partners Canada and Mexico, but overall vehicle price increases nonetheless

Additional Raw Material Data Aggregation Service (RMDAS) pricing from Pittsburgh-based Management Science Associates is available on *Recycling Today*’s website at www.RecyclingToday.com/rmdas.



● Davis Index, No. 1 Busheling: National average price in U.S. dollars per gross ton delivered to U.S. consumer ■ RMDAS Ferrous Scrap Price Index: Per gross ton for No. 2 shredded scrap, defined as 0.17 percent or greater copper content, effective the 20th of each respective buy month

seemingly are expected.

"With nearly half of all cars sold in the U.S. each year imported and roughly 60 percent of car parts imported before final assembly in the U.S., the implementation of these tariffs will place an enormous price burden on consumers," a late March report by *Car & Driver* says.

A *USA Today* report on the same topic cites Bank of America research analyst John Murphy predicting that the average new vehicle cost in the U.S. could increase by \$4,500, with some increases reaching \$10,000.

Such price hikes are unlikely to spur new car sales in

a country where the average age of used cars continues to creep upward, according to figures collected by S&P Global Mobility.

According to a May 2024 S&P analysis, the average age of cars and light trucks in the U.S. rose to a new record of 12.6 years in 2024, up by two months from 2023.

While that statistic could improve business opportunities for firms in the aftermarket and vehicle service sector, S&P says, it is less cheerful for shredder operators relying on auto hulks as part of the metals recycling chain.

As steel recyclers await clarity on scrap supply, the

ability tariffs on inbound steel have to bolster activity at domestic melt shops could serve as a source of good news.

In the final full week of March, the Washington-based American Iron and Steel Institute reports domestic raw steel production increased by 0.1 percent compared with the last week in March 2024 and by 2.6 percent compared with the prior week.

A strengthened domestic market could be needed to offset questions surrounding the future of steel output in several export destinations, most notably in Turkey, where economic and political uncertainties have emerged.

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REMA ADDS ITS VOICE TO THE COMMERCE DEPARTMENT INVESTIGATION INTO COPPER

THE RECYCLED MATERIALS ASSOCIATION (ReMA) HAS SUBMITTED COMMENTS in the Commerce Department's investigation into possible tariffs on copper imports, which President Donald Trump ordered in late February.

Commerce Secretary Howard Lutnick started the investigation under Section 232 of the Trade Expansion Act of 1962, the law Trump used in his first term to impose 25 percent tariffs on steel and aluminum.

"Copper, scrap copper and copper's derivative products play a vital role in defense applications, infrastructure and emerging technologies, including clean energy, electric vehicles and advanced electronics," Trump writes in the executive order.

It also says that while the U.S. has ample copper reserves, its smelting and refining capacity lags global competitors', noting China controls more than 50 percent of global smelting

capacity and has four of the five largest refining facilities.

The report could recommend tariffs, export controls or incentives to increase domestic production and make policy recommendations for strategic investments, permitting reforms and recycling initiatives.

Washington-based ReMA's comments underscore the essential role of copper recycling in supporting the U.S. economy, domestic manufacturing and national security, but the association voices its opposition to restrictions on recycled copper exports.

"A hallmark of American economic strength is the presence of American industries in export markets," the association writes. "This is one of the many areas in which the recycled materials industry contributes to America's global economic competitiveness. ReMA members' exports are consistently and competitively strong."

ReMA notes the industry

“ReMA recyclers’ ability to produce for domestic needs and export surplus materials to the global market is the model that every industry should strive for.”

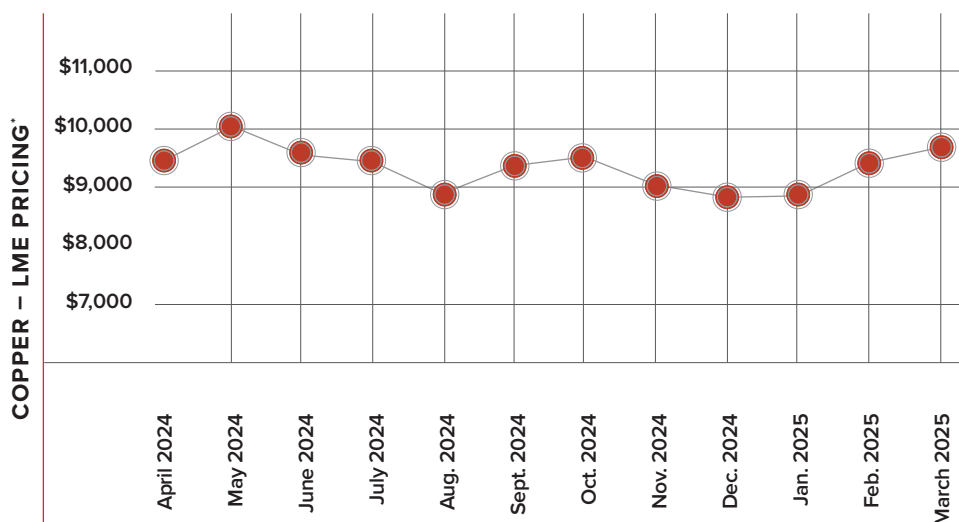
– ReMA in comments submitted to the Commerce Department in the Section 232 copper investigation

exported nearly \$27.7 billion in recycled materials in 2024. "ReMA recyclers' ability to produce for domestic needs and export surplus materials to the global market is the model that every industry should strive for. Exports not only significantly help the U.S. balance of trade but also extend America's reach, power and influence abroad."


Daniel Pickard, a shareholder and the International Trade & National Security Practice group leader at Buchanan Ingersoll & Rooney in Washington says an affirmative finding in the copper investigation is likely.

"It is clear the administration is determined to strongly pursue trade policies that promote domestic industries and supply chains," he adds.

"As we've seen in other markets like steel, tariffs have a tendency of reducing imports and raising domestic prices, and in this case, the copper market seems to be pricing this in."



*Average monthly settlement price, cash buyer, in U.S. dollars per metric ton; source: London Metal Exchange, www.lme.com



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LABOR, SUPPLY CHAIN CHALLENGES LEAD TO BANKRUPTCY FILING

IN A MOVE BROUGHT ON BY OPERATIONAL DISRUPTIONS AND SUPPLY CHAIN CHALLENGES, Royal Paper,

a Phoenix-based tissue paper producer for the retail and away-from-home market, has filed for bankruptcy and reportedly agreed to a deal to sell its business.

Royal filed for Chapter 11 protection April 8 in the U.S. Bankruptcy Court for the District of Delaware, listing assets and liabilities of between \$100 million and \$500 million in its petition.

"Our team has been working diligently to strengthen our financial foundation in the face of difficult macroeconomic circumstances and other challenges facing Royal," Chief Executive Steve Schoembs says in a mid-April statement.

Sofidel America Corp., a Horsham, Pennsylvania-based business unit of Italian tissue maker Sofidel Group, has entered into a \$126 million "stalking horse" purchase agreement to acquire "substantially all"

Royal's assets. The stalking horse deal sets the price of the assets and is subject to competing offers.

Royal also has lined up Chapter 11 financing to fund the bankruptcy and retained Chicago-based restructuring adviser Novo Advisors LLC and Livingstone Partners LLC, also in Chicago, as investment bankers.

"Entering into an agreement with Sofidel provides stability for our business, its customers and our employees while we continue to run our sale process," Schoembs says. "I want to thank our incredibly talented employees for their continued focus and hard work and our customers, partners and suppliers for their support."

According to a report from Bondoro, Royal entered 2024 with "a strong order book" and projected revenue of about \$220 million across about 105 active customers. However, operations were disrupted materially in February 2024 by a fire at one of its distribution centers

"Our team has been working diligently to strengthen our financial foundation in the face of difficult macroeconomic circumstances and other challenges facing Royal."

— Steve Schoembs,
chief executive,
Royal Paper

as the company also faced ongoing labor shortages.

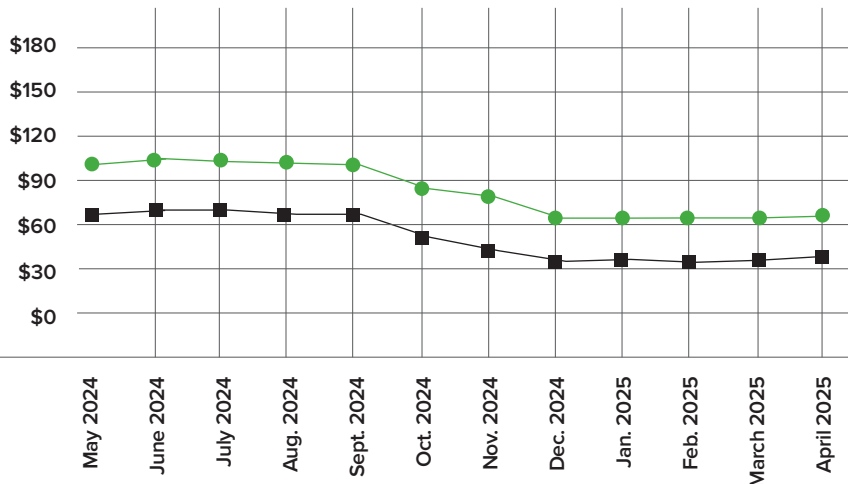
Royal then failed to meet customer demand for roughly the first half of 2024, according to the report, leading to reduced revenue, cash depletion and "strained customer relations."

"With senior secured debt maturing [Dec.] 31, 2024, Royal Paper faced a liquidity crunch in mid-2024 as suppliers tightened credit terms amid operational challenges and repayment concerns," Bondoro says. "Reduced credit availability, combined with the company's inability to timely pay suppliers, limited access to raw materials—most critically, pulp—hindering order fulfillment."

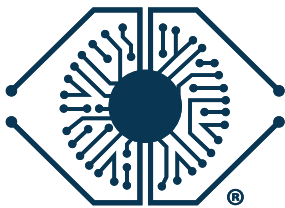
Royal is a vertically integrated tissue maker with manufacturing and distribution assets across the U.S. producing bath tissue, paper towels, facial tissue and napkins for retail chains including Trader Joe's, Aldi, Whole Foods, Kroger and Meijer. The company also makes 100 percent-recycled

For a demo of Fastmarkets RISI's *PPI Pulp & Paper Week* pricing, please visit www.fastmarkets.com/thanks-for-your-interest-in-a-demo-of-our-portal.

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* OCC ■ Mixed Paper (54); Average U.S. dollars per short ton for open market purchases by mills for delivery in April reported by Fastmarkets RISI's *PPI Pulp & Paper Week* April 4. Prices used with permission from *PPI Pulp & Paper Week*. Visit www.fastmarkets.com/thanks-for-your-interest-in-a-demo-of-our-portal for more information.



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Royal's paper mill in Gila Bend, Arizona, features two tissue machines with approximately 61,000 metric tons of annual production capacity. It also operates three converting facilities,

two in Phoenix and one in Duncan, South Carolina. Warehousing and distribution centers are co-located with its converting facilities.

Sofidel America, meanwhile, has made several large-scale investments in the U.S. over the last year.

In January 2024, it acquired a tissue

mill in Duluth, Minnesota, from ST Paper, a Oconto Falls, Wisconsin-based tissue paper producer. At the time of the purchase, CEO Luigi Lazzareschi said the move allowed Sofidel to "immediately" meet growing demand, which he said saw a significant upturn in 2023.

Following the Duluth acquisition, in November 2024, Sofidel finalized its purchase of Clearwater Paper Corp.'s tissue business in a deal worth about \$1.06 billion—the largest transaction in the company's history. The Clearwater deal included sites in Shelby, North Carolina; Lewiston, Idaho; Elwood, Illinois; and Las Vegas.

Export	Destination	New York	LA	SF/Oakland
Mixed (54)	Asia	87-90	82-85	77-80
OCC (11)	Asia	147-150	145-148	140-143
SRPN (56)	Asia	97-100	90-93	80-83
SOP (37)	Asia	227-230	222-225	212-215

Domestic	New England	New York	Buffalo	Midwest (Chicago)	Southeast	Southwest	Los Angeles	San Francisco	Pacific Northwest
Mixed (54)	35-40	35-40	35-40	55-60	40-45	35-40	35-40	30-35	25-30
OCC (11)	75-80	75-80	75-80	75-80	75-80	70-75	55-60	35-40	45-50
SRPN (56)	60-65	60-65	60-65	65-70	60-65	60-65	45-50	35-40	30-35
SOP (37)	•	130-140	•	130-140	130-140	135-145	165-175	•	95-105

U.S. dollars per ton for open market purchases by mills. Domestic prices are FOB seller's dock for delivery in April reported by Fastmarkets RISI's PPI Pulp & Paper Week April 4, while export prices are FAS port of origin. New York includes ports in northern New Jersey and LA includes Long Beach and LA ports. Prices used with permission from PPI Pulp & Paper Week, <https://auth.fastmarkets.com>.



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ROAD TO PACKAGING GOALS STILL ROCKY

IN RECENT YEARS, BRANDS VOLUNTARILY HAVE SET SUSTAINABILITY TARGETS

for packaging, such as making it more widely recyclable or increasing postconsumer resin (PCR) use, with ambitious 2025 and 2030 deadlines.

Since last year, however, some of those brands have acknowledged they would miss their marks.

In December 2024, The Coca-Cola Co. pushed its packaging goals to 2035 while moving away from its goal to reduce virgin plastic use by 3 million tons by 2025. It also lowered its 2030 target of using at least 50 percent recycled content to 35-40 percent.

In February, Walmart updated its 2023 environmental report, saying it didn't expect to meet its 2025 plastic packaging and reduction goals.

For example, by this year, the retailer aimed to make 17 percent of its global private-brand packaging with PCR. As of 2023, it had achieved 8 percent, while its use of virgin plastic in global private-brand packaging

increased that year despite a 2025 goal to reduce virgin use 15 percent.

At the 2025 Plastics Recycling Conference in National Harbor, Maryland, in late-March, a panel discussed the issue of missed goals and the obstacles brands have faced along the way.

Anne Bedarf, director of global packaging and plastics sustainability at New York City-based Colgate-Palmolive, described the landscape as "fragmented" when it comes to knowing if packaging truly is recyclable and called for more alignment among organizations that assess recyclability.

Mark Watts, associate director of packaging sustainability at Ewing, New Jersey-based Church & Dwight Co. Inc., which owns the Arm & Hammer brand, said brands are looking at "a game that is continually changing" when it comes to setting packaging goals. He noted many 2025 goals were set before legislation like extended producer responsibility gained steam in the U.S., and recycling

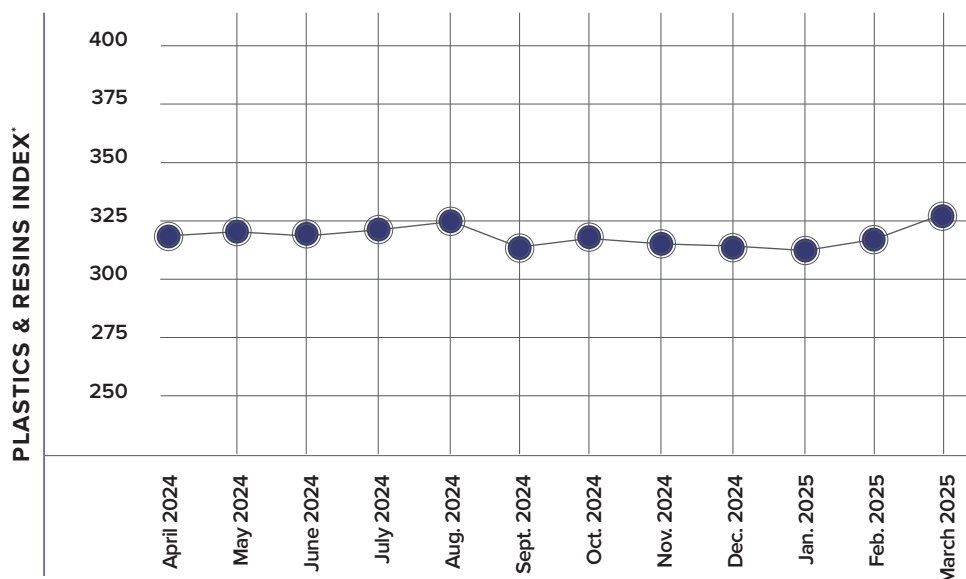
“This is a time to push forward toward these commitments, to acknowledge and say these goals we’ve set are aspirational. ... But if they’re not aspirational, it’s not going to create progress.”

– Jonathan Quinn, president and CEO, U.S. Plastics Pact

infrastructure has yet to match brand resin needs. “[W]e’re caught between a rock and a hard place because we’re required by law [in some places] to go higher, and it’s costing us more, rather than the infrastructure developing and maturing to the same level that the virgin plastic infrastructure has,” he said. “We feel the pain of it.”

Jonathan Quinn, president and CEO of the Walpole, New Hampshire-based U.S. Plastics Pact, urged brands to stay the course and be transparent about their progress.

“This is a time to push forward toward these commitments, to acknowledge and say these goals we’ve set are aspirational, and that’s very true,” he said. “But if they’re not aspirational, it’s not going to create progress. And those companies that use the political climate of today as an excuse to retreat or step back, those are the companies that are going to be held accountable by consumers. Consumers are going to see those that just wanted the sustainability T-shirt versus the actual sustainable action.”



*Producer price index is based on December 1980 average prices as 100; source: U.S. Bureau of Labor Statistics



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BIGGER, FASTER, STRONGER

EGA Spectro Alloys of Minnesota continues to expand its capabilities, allowing it to consume a wider range of postconsumer aluminum.

BY DEANNE TOTO

Die cast and foundry alloys producer EGA Spectro Alloys, Rosemount, Minnesota, has invested significantly to expand its capabilities over the last decade. Its most recent investment, announced in September of 2021 and valued at \$71 million, adds equipment to sort and melt postconsumer aluminum and cast it into various sheet and billet alloys.

The project is nearing completion and the company expects to begin melting metal in July, President Luke Palen says.

That investment predates another development for Spectro: selling an 80 percent stake to Emirates Global Aluminium (EGA), the world's largest integrated "premium aluminum" producer, based in the United Arab Emirates.

EGA'S MAJORITY STAKE

The purchase, completed in September

of last year, accelerated EGA's global expansion into aluminum recycling and its presence in the United States.

In late 2023, the company began constructing what it describes as the UAE's largest aluminum recycling plant in Al Taweelah, with 170,000 metric tons of secondary billet production capacity per year. The plant is expected to produce its first hot metal in the first half of 2026.

In May 2024, EGA purchased German recycled-content aluminum foundry operator Leichtmetall AluminiumGiesserei Hannover GmbH and, now, in addition to this specialty foundry in Germany and Spectro in the U.S., the company operates aluminum smelters in Abu Dhabi and Dubai, an alumina refinery in Abu Dhabi and a bauxite mine and associated export facilities in the Republic of Guinea.

EGA also announced plans in March


to invest in a new aluminum smelter in the U.S., which, according to the White House, would nearly double U.S. domestic aluminum production.

"Our goal is to grow further in both primary and recycled aluminum to meet the growing global demand for a metal which is essential for our world's sustainable future," Abdunnasser Bin Kalban, CEO of EGA, said at the time the Spectro acquisition was announced.

"Spectro Alloys has a strong and highly experienced team [that] is already implementing ambitious expansion plans and will be a strong platform for the further development of an EGA recycling business in the U.S. I look forward to working with Spectro Alloys' team."

Palen says Spectro's long-term plans didn't include such a deal.

However, when EGA approached



Markets at EGA; and Julie Cunningham, EGA's executive director of the global tax function.

Palen says the board members have been involved in Spectro's onboarding and integration process.

"There are opportunities to learn from them, as well, in terms of best practices operationally that we'll be able to implement, and some of that will be new technology that we'll be investing in down the road," he adds.

By the end of last year, EGA had 140,000 metric tons of secondary production capacity per year, with an additional 225,000 metric tons under construction, which includes the expansion underway at Spectro.

EXPANSION UNDERWAY

The company sells its die cast and foundry alloys to more than 125 customers throughout the U.S. and into Canada and Mexico, with almost half of its current production being used in the automotive sector. Other sectors Spectro serves include small engine manufacturing, construction and the recreational vehicle business. Its expansion will broaden its product offering and capabilities.

At the start of this year, Spectro, which was founded in 1973 and purchased by the Palen family in 1989, completed construction of a 90,000-square-foot addition that will enable the firm to expand its product offering into billet made from postconsumer aluminum that it will supply to the extrusion industry to produce products that include railings, window and door trim and structural components for cars, boats, airplanes, trailers, docks and more.

Palen says the building for its expansion was completed ahead of schedule and equipment installation at the site has begun, also ahead of schedule.

"Three months from now, we will be casting," he says. "We had targeted July for our hot commissioning first melt, and it's looking like we're a little bit ahead of that at this point too."

The equipment being installed includes new melting and holding furnaces and a vertical casting pit, which will allow the company to produce billets in 7-, 8-, 9-, 10- and 12-inch diameters.

"That will cover most of the regional

demand in terms of billet diameters," Palen says.

Spectro also is installing the same billet homogenizing technology EGA has at its facilities. "It's top-of-the-line, world-class homogenizing technology," Palen says.

While the initial phase of Spectro's recent expansion already had financing committed and was underway before EGA bought into the company, Palen says additional plans now will get "accelerated," including more than tripling the company's planned investment in its quality lab, giving EGA a flagship North American lab.

"EGA is recognized as the premier, top-quality aluminum producer," Palen says. "And the whole aim here is to have the same quality expectation and reputation on the recycled side. That is something that EGA always has had pride in, and it's going to extend to everything that we're doing at Spectro."

The added investment in its lab capabilities translates to more and better equipment, as well as a larger team.

"Then we'll have the ability to handle customer support across EGA's entire North American business, not only on recycled products but everything," Palen says. "It will be really a fantastic asset for all EGA customers in North America."

He adds that the testing capabilities will enable Spectro to troubleshoot for customers that might have casting issues or mechanical defects in a part.

"Those sorts of questions come up, whether it's in casting or extruding, and having the resource locally here that doesn't involve a third-party lab [and] that can be very responsive in terms of understanding and fixing customer issues should be a tool that we're able to use to ensure that everything in terms of customer service and quality is not only meeting but setting a new standard for EGA in North America," Palen says.

USING A WIDER RANGE OF SCRAP

Spectro has about 120,000 tons per year of aluminum ingot production capacity that EGA says has a carbon intensity of less than 1 ton of CO₂ equivalent per ton of aluminum produced. The expansion will add about 60,000 tons per year of secondary billet production capacity.

Spectro, Palen realized the company's core values of safety, integrity, innovation, teamwork, customer focus and sustainability aligned well with those of EGA.

He also was familiar with EGA's North American sales team, which he describes as well-respected in the industry.

Palen says Spectro and EGA have complementary key strengths, as well.

"The more we looked at it, the more it seemed like it was just a great strategic fit between our core strengths and their needs and their core strengths and our needs," he says.

With EGA's majority stake, Spectro's board of directors includes Palen; Adel Abubakar, chief marketing officer at EGA; Christian Witsch, director of Casthouse, Recycling and Technical Sales at EGA; Joseph Hanson, director of Corporate Development, Financing and Capital

While the company's current scrap consumption is geared toward producing foundry and die cast aluminum alloys, which means purchasing grades like aluminum cast, sheet, extrusions, turnings, mixed low-copper clip, rims, zorba, radiators, painted aluminum siding, twitch and

tweak, the addition of billet production will expand the grades it purchases.

"We use about 90 percent scrap, and about 70 percent ... is postconsumer scrap today," Palen says. "On the billet side, it will be a higher proportion of postindustrial scrap than postconsumer scrap, but our



aim is to get a significant portion of that postconsumer stream into our recycled billets as well."

The company started investing in scrap sorting technology in 2015 to better control chemistries and remove potentially hazardous material before the metal is melted.

"I believe we're a leader when it comes to sorting technology implementation in our segment of the industry, but we have another significant investment this summer in additional sorting capacity that is going to be geared specifically toward ramping up on the billet side and being able to utilize even more sorted material and postconsumer material in our finished product," Palen says.

Spectro will buy different mill-grade extrusion scrap packages that the company is not buying today, Palen says, adding that much of that material will come from the suppliers it's already purchasing from.

"We're buying from more than 250 different scrapyards and scrap suppliers, and most of them are already dealing to some degree in mill-grade packages, and we're going to be targeting quite a bit of that material," he adds. "On top of that, having the ability to sort out billet-quality scrap from mixed materials, as well, with our sorting equipment is going to be another avenue."

In addition to buying recovered aluminum from Indiana and Ohio, Palen says the company buys as far away as Texas, the West Coast and into Canada.

Spectro offers a strong value proposition to suppliers, Palen says.

"We're already in the market for a lot of lower, secondary grades of scrap and expanding our reach now into higher-purity scrap. And with our investment in sorting, we'll have the ability to upgrade [scrap]," he says. "What that means from a scrap supplier standpoint is that if you get a reject, it's not additional shipping

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charges and selling for a much lower price somewhere else. It stays on-site, and we, obviously, would adjust based on any constraints we have value-wise, but there's not a whole lot of burden on the scrap supplier if they have something that does get rejected. We're buying 10/10 and irony

extrusion already as well, and if they have an extrusion package that wasn't up to billet spec, we're probably the best regional home for it anyway.

"We work with a lot of smaller scrap yards as well, and they might have a load of clean extrusion every other month, but



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they are already shipping us other materials. They can throw five bales on this truckload and five bales on the next one and not have to wait for a full truckload that they are shipping farther away. There should be, in terms of mixed-load opportunities and fear of rejection and cost of rejection, a strong value for our regional supply base in terms of dealing with Spectro on these new items."

Palen says Spectro has a reputation among suppliers for being a very "well-respected" home for aluminum scrap. "We have 250 long-term suppliers for a reason; people trust us and know that we're providing good value," he continues.

RECYCLING & NORTH AMERICA'S ALUMINUM INDUSTRY

The importance of recycling to North America's aluminum industry has never been more apparent than now, Palen says.

"I think it's going to be an exciting next five to 10 years for recycling in North America," he says. "We're really excited about our ability to make a bigger impact locally and regionally with recycled content, to keep it closer to home and to service new customers that we know are really excited to work with Spectro as well."

As more consumers and manufacturers value recycled content in their products, Palen thinks premiums for recycled-content metal could become a reality, particularly in the U.S. with recycling's role in the overall aluminum value chain.

"Ultimately, ... the market will be what the market will be. But, long term, I think the benefit of recycling, environmentally and regionally, makes it something that both consumers and OEMs [original equipment manufacturers] are going to care about." **RT**

The author is editorial director of the Recycling Today Media Group and can be reached at dtoto@gie.net.



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A WINTER to remember

After recycled steel prices spent 2024 in the doldrums, supply-related factors contributed to a spike in values in the first quarter of this year.

BY BRIAN TAYLOR

Scrap processors generally are pleased to see the value of their inventories increase as a result of steel mill offers and overseas bids for recycled steel.

That was the case in the first three months of 2025, but because most of the factors creating the price hike were tied to supply disruptions rather than to market-moving boosts in demand, the situation was not fully enjoyable.

While prices increased for traders selling recycled steel (ideally creating comfortable margins), buyers dealt with severe weather and uncertainty in the automotive sector, circumstances that affected flows into recycling facilities.

As winter weather in the northern United States and the damage from a series of storms in the South fades into the rearview mirror, the steel recycling market continues to watch how trade,

economic and political issues in the U.S. and beyond will influence recycled steel generation and pricing.

THE COLD END TO A COLD SPELL

By the early December 2024 mill buying period, recycled steel processors found themselves in a stretch of 10 straight months without any significant upward price movement.

"The ability to maintain margin has been difficult," Ken Schutt of Kimmel Scrap Iron & Metal Co. in Detroit told *Recycling Today* at that time.

"To see a one-month increase of \$50 or more, [there] needs to be a return of a steady stream of confidence in manufacturing. We also need to see a return to steel consumption. I don't see a \$50 move upward anytime soon."

But in the following three months, those demand-related conditions did not

materialize. What did occur, if not a perfect storm, was a series of storms, blizzards and political moves that influenced the ferrous scrap market on the supply side.

Processors can count on some supply reduction in December thanks to reduced operating schedules at manufacturing plants that generate scrap combined with the potential onset of disruptive weather in northern states.

At the start of this year, such disruptive weather struck early and often. In the North, snow and ice snarled traffic, delayed collections and hampered activity at scrap-generating construction and demolition sites.

The bad weather was not restricted to the North, however.

By early January, mills or large yards in states with a year-end inventory tax that sought to replenish supply found themselves doing so at the same time two

consecutive winter storms affected traffic, recycling collections and outdoor demolition activity in parts of the South, Ohio Valley and Mid-Atlantic.

According to figures from the Raw Material Data Aggregation Service, or RMDAS, of Pittsburgh-based MSA Inc., the result was a \$20-25-per-ton increase in January in prices U.S. mills paid for benchmark prompt and obsolete recycled steel grades.

More severe weather followed into late January and February and was coupled with a flurry of trade and federal government spending policy announcements by President Donald Trump.

“The polar vortex, for most of January, was the pivotal event escalating the upturn of scrap prices,” an employee of a multilocation processing company told *Recycling Today* in February. “Cold weather and storms reduced scrap intakes by over 40 percent in some regions in January. This was after mills overdid inventory reductions in November and December of last year.”

But politics also were on the recycler’s mind by that point, less than three weeks after Trump had taken office.

“It’s less about the tariffs and more the uncertainty that creates the concern,” the steel recycler said. “How do you plan for the unknown? Unfortunately, chaos is the agenda for the next four years.”

Events unfolding in the subsequent two months have helped confirm that steel recycler’s observation.

STORMY CONVERSATIONS ABOUT TRADE

The upward pressure on ferrous scrap values exerted itself again in March, with RMDAS calculating an average purchase price of \$501 for its prompt industrial composite grade by mills in its North Midwest region.

During much of that buying period, which ran from Feb. 21 to March 20, mills and traders in the U.S. were bracing for a 25 percent tariff on any scrap purchased from Canada or Mexico. That tariff went into effect March 4, then two days later was paused for a month for imports determined to be in compliance with the United States-Mexico-Canada Agreement (USMCA), including metals for recycling.

While the United States is by far a net

KEY TAKEAWAYS

- + **Winter weather combined with seasonal manufacturing slowdowns created a supply-deficient recycled steel market in early 2025.**
- + **Aggressive new federal policies are poised to influence ferrous scrap flows and where steel is made this year.**
- + **Questions about the Neom project in Saudi Arabia as well as Turkish politics could ripple through the global market.**

exporter of recycled steel, according to U.S. Census Bureau data compiled by the U.S. Geological Survey, from 2020-2023, 71 percent of imported ferrous scrap purchased by American steel mills and foundries came from Canada and 12 percent was shipped from Mexico.

For decades, Canadian ferrous scrap has had duty-free access to U.S. mills, and

it remains unclear how those on either side of the border are responding to the tariff situation.

Contacted again by *Recycling Today* in late March just as the White House announced 25 percent tariffs on inbound vehicles and components, Schutt says that move could affect the market in his region more than a scrap metal tariff.

POCKETBOOK ISSUES

Political leaders including U.S. President Donald Trump and Turkish President Recep Erdoğan have started 2025 by making moves that influence the recycled steel market

A critical factor in the U.S. economy and steel sector, however, is the ability and willingness of consumers to purchase new automobiles, appliances and homes.

As of early spring, recyclers planning for how the U.S. economy will develop in 2025 were receiving mixed signals from construction and automotive sector data.

The Japan-based MarkLines website indicates new passenger vehicle sales in the U.S. fell by 2.3 percent in February compared with a year earlier. While pickup truck and SUV sales grew by a modest 0.8 percent, passenger car sales dropped 14.1 percent year on year.

The disappointing new vehicle sales activity occurred the same month used vehicle sales in the U.S. rose by 16 percent month over month and by 6 percent compared with February 2024, according to an analysis from Cox Automotive.

Offering optimism within the sector, automakers and suppliers have reported increased manufacturing activity for February. According to a Federal Reserve Bank report, motor vehicle and parts output accelerated 8.5 percent after declining for two straight months.

Potentially generating concern in the construction and demolition sectors are survey responses tied to the American Institute of Architects (AIA)/Deltak’s Architecture Billings Index (ABI), an indicator that leads non-residential construction activity by approximately nine to 12 months.

Nationally, the ABI index score was 45.5 in February, with any number below 50 demonstrating a decline in survey respondents’ billings—the further below 50, the less business being generated.

“Billings were flat early in the fourth quarter of 2024 but have softened significantly since then,” the AIA reports. “February also marked the first month since the height of the pandemic in 2020 that inquiries into new projects at firms have declined.”

“For the last 90-plus days, there is not much business or work in the pipeline beyond March 2025,” Schutt says regarding what he’s heard from his contacts in the automotive supply chain. “That is scary. As for the cars and components moving across the border, we’ll have to wait and see.”

TURMOIL BEYOND THE BORDER

Steel recyclers who deal in the global market have other matters to consider beyond tariffs and the USMCA trading situation.

Figures from the Brussels-based World Steel Association show a notable decline in steel output in the U.S.’ largest export market, Turkey, and other regions.

While the fate of one construction project rarely would affect regional steel output, the Neom building project in Saudi Arabia is not an ordinary project.

Some observers note shrinking steel output in Turkey (-3.7 percent year to date), the Middle East (-13.5 percent) and Iran (-23.1 percent) that quickly followed the late 2024 news that the massive project—which includes the planned 165-mile “The Line” development—is being somewhat reconsidered.

Neom is an urban and industrial development project described as nearly the size of Belgium and has been designed to house nearly 9 million people.

The project had been championed by the Saudi Crown Prince Mohammed bin Salman, but by late last year, he reportedly began scaling back support from the nation’s sovereign wealth fund.

The project’s rising costs started coming to light the same time the price of oil, Saudi Arabia’s leading export, began to stagnate. Last November, the \$500 billion project’s chief executive left the Neom leadership team, according to reports.

In October, just before Neom’s chief executive departed, Chief Investment Officer Manar Al Moneef told attendees of the Global Logistics Forum in Saudi Arabia that the project was, at that time, using one-fifth of all the steel being produced in the world, according to a report from the *Arabian Gulf Business Insight*.

As of late March, Turkey also was embroiled in political turmoil that quickly began to influence recycled steel trading.

As the year unfolds, it seems scrap processors who would prefer to focus on activities in their own plants instead will have to watch for orders from the White House, policies at the borders and events in the recycled steel export market. **RT**

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\$465

SEPT. 2024

\$374

MARCH 2024

\$409

SEPT. 2023

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*United States average mill buying price per ton for No. 2 shredded scrap, 0.17 or greater copper content; Source: MSA Inc.’s RMDAS service, <http://rmdas.msa.com>.

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All about the EXECUTION

Data gathering and consistent communication with community leaders and residents are essential to the rollout of municipal recycling collection programs.

BY CHRIS VOLOSCHUK

Cards Recycling CEO Dustin Reynolds doesn't mince words when it comes to what it takes to successfully deliver on a municipal waste and recycling collection contract.

"You have to execute, and you have to execute flawlessly," he says.

Throughout the past several years, Cards has built a strong track record of rolling out waste and recycling collection programs in new markets. Fueled by an aggressive acquisition strategy, the Fayetteville, Arkansas-based company now operates in five states—Arkansas, Kansas, Missouri, Oklahoma and Texas, serving both cities and counties. Cards manages 17 locations, including seven transfer stations and two material recovery facilities, and provides services to more than 200,000 customers per week.

No two programs are exactly alike, according to Reynolds. But when it comes to rolling out successful collection programs, whether through winning a bid in a municipality or inheriting a contract through an acquisition, he says a combination of due diligence on the front end, consistent communication with community leaders and residents and minding existing data are the most important factors.

DOING THE HOMEWORK

Before beginning waste and recycling collections in a new service area, Reynolds and his team at Cards gather as much data and research on the new market as they can.

"We need to understand what types of service are important to the residents and then what matters most to the [city] council, because sometimes those priorities don't always align," he says. "For residents, it could be the range or type of services offered. For the council, it



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could be billing, payment terms, software or communication. We always start with addressing those two things.”

Cards then analyzes specific data points, such as household counts and tonnage. This informs decisions on routing, service levels and potential needs for extra carts or specialized services based on the material stream in the community.

“Each municipality is different, and what’s important to one city versus another city could be adjacent to each other, or they could be completely different,” Reynolds says, adding that different locations could require back-door or drive-up service or extra pickup days, for example. “We want to know pricing, we want to know who the incumbent [hauler] is and we want to know the terms of the agreement and how many times that agreement has been renewed because you’ve got to know what you’re dealing with.”

Tim Bolduc, CEO of Milton, Florida-based Adams Sanitation, which provides residential and commercial waste management and recycling services throughout the Florida Panhandle, also says haulers must be put in advance work to make collection a seamless process.

Adams has rolled out municipal and countywide collection programs that can span hundreds of square miles, and Bolduc says the company will identify staging locations that are close to where it will have different levels of distribution.

“If it’s a county, you may have two or three staging locations in the north, some in the central portion and then some in the southern portion of it,” he says. “Then we prestage all of those and make sure we staff up accordingly.”

“A lot of times, we’ll bring in companies to help us do the bin deliveries, [for example]. We just try to make sure we have a really good understanding of what our challenges will be weeks and, hopefully, months in advance of actually having to go to the rollout day.”

THE ART OF COMMUNICATION

In Bolduc’s view, success in industries such as waste and recycling collection comes down to building and fostering relationships and communication with community leadership, residents and even competitors.

“We always say we try to over-communicate as much as possible with our end users just to make sure that we’re meeting whatever needs that we have operational control over,” he says. “That could mean helping people move containers around or making sure we schedule delivery dates or coordinating with the people that are currently providing the service to let them know when we’ll be delivering our carts.”

At Cards, Reynolds says the company adheres to the acronym “FOCUS,” which stands for field work, such as driving the roadways in a location; opportunities, such as finding ways to make collection safer and more efficient; creativity, where the company aims to put together a proposal that speaks to the needs of its customers; urgency, as the company moves quickly to launch its collection programs; and the “S” can stand for sales, sustainability, safety, service, stability or synergies, depending on the initiative Cards is tackling at a given time.

Cards provides municipalities with references from its existing portfolio that can help build trust and transparency with local leaders. The company also aims to check in with municipal partners quarterly to better understand their needs and what’s important to them.

For residents, Cards delivers what Reynolds calls an “extensive” welcome packet ahead of service launch. The company works proactively to gather as much

customer data as possible through a variety of communication methods. “We use text, we use email and then traditional letters. For the two weeks leading up to [the start of service], we’re communicating with them constantly.”

“I would say that, at the end of the day, it all boils down to talent and engagement. Our team has extreme ownership with these acquisitions and municipal contracts and integrating new employees and customers. We call it our white-glove integration. It touches every aspect of our business.”

THE EDUCATION PIECE

When communicating its entry into a new market, Reynolds says Cards makes sure customers are fully aware of the company’s service schedule.

The company communicates when bins should be placed at the curb, aligning with local ordinances, and outlines the collection schedule for recycling.

“We’ll give [customers a computer-generated] map, and we’ll highlight the weeks so they can see [their collection days], and they can take that and print it off to keep on hand,” Reynolds says. “From there, we ask how they’d like to communicate with us and give them all our options: You can call, you can email [or] you can text, it’s really up to the resident.”

Adams uses an app to communicate with its customers and an array of social media platforms, such as Facebook, X and Instagram, to meet different demographics in the markets it operates in and make sure they’re as educated as possible.

“We communicate often,” Bolduc says. “We make sure that in those communications we’re setting real expectations for our customers, [such as] this is our start date, and as we work through these first couple of cycles, if you have issues, we know that those may come up.”

“We want to make sure [customers] understand the contact points. So, we’re hitting them with text messages, emails or calls to let them know that sometimes things don’t go right, [and] we want to make sure you know exactly how to get ahold of us.” **RT**

The author is associate editor of *Recycling Today* and can be reached at cvoloschuk@gje.net.

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CREATING A GREENER GAME DAY

WM is building partnerships with sports leagues, teams and venues to advance recycling and sustainability initiatives.

BY MALLORY SZCZEPANSKI

Over the years, a growing emphasis on sustainability within sports has led to partnerships between Houston-based waste and recycling company WM and various professional sports leagues, teams and venues across the U.S.

From annual major events like the WM Phoenix Open and the MLB All-Star Game to long-term collaborations with teams such as the Cleveland Cavaliers and Florida Panthers, WM and its partners aim to reduce waste, increase reuse and recycling efforts and move the needle on other sustainability initiatives, such as water use and emissions reductions.

“GREENEST SHOW ON GRASS”

In 2010, WM secured the title sponsorship for the WM Phoenix Open, providing a unique opportunity to make a significant impact on sustainability while reaching a broader audience.

“At that time, we were trying to figure out how to build a zero-waste event at one of the largest sporting events on the planet, and, three years later, we officially earned our third-party TRUE [Total Resource Use and Efficiency] Zero Waste certification from UL,” says Eric Dixon, vice president of sustainability and environmental solutions at WM.

Since then, WM has continued to expand its sustainability efforts at what it calls the “Greenest Show on Grass.”

At the 2023 WM Phoenix Open, in partnership with the Thunderbirds, tournament vendors and the PGA Tour, WM diverted 100 percent of materials from landfill. Additionally, 18.9 tons of unused, perishable food were donated to local nonprofits, 970 pounds of wine and liquor bottles were turned into reusable glassware by Refresh Glass, 62 percent of signage from previous tournaments was reused, 67 percent of signage was stored for reuse at future tournaments, about 15 tons of mesh fencing were upcycled into new WM carts made by Monterey, California-based Rehrig Pacific Co. and 32.6 tons of building materials were donated to local organizations.



Photo by Brandon Tigrett

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The WM Phoenix Open's zero-waste program also received its seventh Golf Environment Organization tournament certification and its 11th consecutive UL validation from UL Research Institute, based in Evanston, Illinois.

These accomplishments, along with many others, encouraged WM to explore how it could help other sporting events, teams and venues achieve their sustainability goals, Dixon says.

RECRUITING TEAM PLAYERS

In 2018, WM began forming other sports partnerships across the country.

Now, the company is working with four sports leagues, 24 venues and 11 golf tournaments. Through these partnerships, WM promotes its zero-waste strategy, engages millions of fans and helps its partners extend their sustainability efforts beyond traditional waste management to include water conservation, energy efficiency, emissions reductions and other sustainability initiatives.

"I'm a big fan of a phased approach because trying to do everything [the first game] of a season is a challenge," Dixon says. "It is important to understand where you are on your sustainability journey and then collaborate with us to build a strategy. It is about getting some wins early on and then taking the data from those Phase 1 wins to determine what you are going to tackle in Phase 2 and beyond. That ongoing engagement and continuous improvement can go a long way."

To set these partners up for success, WM first conducts a comprehensive life cycle analysis to understand what materials are coming in and out of each event. Using this data, WM determines a plan of action that could include incorporating more recyclable and compostable materials, separating different types of materials on the front end so they are easier to process on the back end, properly training staff on sustainability efforts and providing guidance to fans through interactive experiences and signage.

WM then works with its partners to monitor diversion rates, greenhouse gas emissions and other metrics to track progress and adjust where necessary.

Some of WM's newest partners, such as Rocket Mortgage FieldHouse, the Cleveland Cavaliers and the Cleveland



Monsters, are working to implement sustainability strategies and working toward meaningful, data-driven results.

"WM is a collaborative partner supporting the Cleveland Cavaliers and Cleveland Monsters in several ways, including helping us identify our waste streams, respond quickly to contamination challenges and providing us with reliable data," says Danielle Doza, vice president of sustainability and environmental services for the Cavaliers. "WM's sustainability advisors also are working closely with us to develop better operating procedures, train team members and explore more effective ways to educate and engage fans."

She says the Cavaliers are working toward energy conservation and efficiency, as well as behavior change and materials management.

"We want to understand the materials coming into the arena and find ways to responsibly manage them," Doza says. "This includes reducing waste sent to landfills, diverting more recyclable materials, back-of-house composting and creating a clean, valuable recycling stream."

"We also aim to influence the behavior of our team members and fans through education and engagement. The biggest impact we can make within our community is behavior change."

FLORIDA EXPANSION

Another notable WM partnership is with the Florida Panthers at the Amerant Bank Arena in Sunrise, Florida.

In 2022, the team faced waste management challenges and could not contract its own hauler because of a franchise agreement with the city. However,



the team was able to contract out its recycling services with WM, which services the area.

Working closely with WM, the team improved its waste management strategies, built a recycling program and transformed its compactor room to run like a mini material recovery facility.

"We purchased a baler and, since May 2023, have been sorting and baling materials like cardboard, aluminum and plastic on-site," says Michael Prairie, director of sustainability and business optimization for the Florida Panthers. "To understand how this baler could work in our compactor room and assist with sustainability goals, we took staff to visit WM's recycling facility in Pembroke Pines. We realized waste management was low-hanging fruit for us and, by making a small investment and change in habits, we could potentially make a larger environmental and economic impact."

The partnership provides the Panthers with data needed to improve processes and explore additional initiatives, such as solar, composting and scaling its efforts across other venues and regions

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300 MH	68,000 lbs	46'	19' 8"	26' 3"	.75 yard	175
350 MH	80,640 lbs	53'	22' 8"	31' 0"	1 yard	245
400 MH	98,000 lbs	57'	22' 8"	34' 9"	1 - 1.25 yards	245
520 MH	125,000 lbs	62'	30' 4"	32' 2"	1.5 - 2 yards	295



MODEL	WEIGHT	REACH	CLAM SHELL	GRAPPLE
60	160,000 lbs	68'	2 - 2.6 yards	2 - 2.6 yards
70	185,000 lbs	78'	4 - 5 yards	4 yards
90	215,000 lbs	88'	5 - 7 yards	5 - 6 yards
95	295,000 lbs	91'	5 - 7 yards	5 - 7 yards
120	350,000 lbs	92'	5 - 7 yards	5 - 7 yards
140	370,000 lbs	100'	7 - 10 yards	7 - 9 yards
200	650,000 lbs	125'	12 - 18 yards	10 - 12 yards
300	900,000 lbs	131'	18 - 33 yards	10 - 12 yards



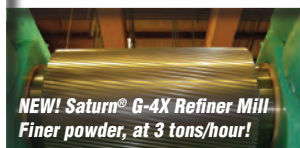
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in south Florida, Prairie says, including the team's new practice rink.

"There is a huge opportunity to make a difference in waste management and recycling in south Florida, and we hope to lead by example through our ongoing sustainability efforts," he says.

ENGAGING FANS

Fans, who often have deep emotional connections with teams, also can play a crucial role in sustainability efforts. By participating in educational initiatives developed by WM and its partners, fans can change their behavior related to waste reduction and recycling.

At Cavaliers games, in-arena messaging is used to influence behavior change. Similarly, at Panthers games, educational videos featuring players and mascots are shown before each game, demonstrating items that can and cannot be recycled. Panthers fans also can scan QR codes on aluminum cups to learn more about recycling efforts on a microsite.

Both teams host interactive fan activations, such as the "Will It Recycle?" timeout game, where fans are encouraged to practice recycling for a chance to win a trip to the WM Phoenix Open. At Rocket Mortgage FieldHouse in Cleveland, the WM Member Seat experience upgrades two fans to a couch made from upcycled commercial containers, featuring them on the Humongotron.

These hands-on experiences aim to instill a sense of responsibility among fans to do the right thing while making recycling fun and engaging, Dixon says.

Over the past three years, WM has tripled the number of leagues, teams and venues it partners with, and the company says it doesn't have plans to slow down anytime soon.

Through new and ongoing partnerships, data-driven strategies and education initiatives, WM says it remains committed to supporting the sports industry in achieving its sustainability goals. **RT**

The author is event and content producer for Recycling Today Media Group and can be reached at mszczepanski@gie.net. A version of this story originally ran in the January/February 2025 edition of *Waste Today*, a sister publication to *Recycling Today*.



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Stadler designs, installs second Republic Services Polymer Center

Stadler Anlagenbau GmbH, based in Germany, has completed the design and installation of the new Republic Services Polymer Center in Indianapolis, marking the second facility of this type it has developed for Republic Services. The Las Vegas Polymer Center opened in late 2023.

The site is designed to process pre-sorted plastics collected by Republic to recover polyethylene terephthalate (PET) and polyolefins. It will provide food-grade recycled plastics for use in producing new bottles, jugs and containers.

The Polymer Center incorporates a Stadler-designed dual-line system. Mixed plastic bales are opened using Stadler's WireX for fully automated wire removal. Materials are processed on two dedicated lines, one for PET and one for mixed plastics, with capacities of 5.5 and 5 tons per hour, respectively.

The process on the PET line begins with mechanical separation and cleaning to remove ferrous particles. A Stadler STT2000 ballistic separator then sorts materials into rigid, flexible and fines fractions, which undergo near-infrared sorting to further separate caps, rings and labels. The 3D fractions are processed through Stadler's label remover and label separation hood. Clear PET, caps and rings are directed to the wash line for granulation and cleaning, while colored



PET is compacted into bales.

On the mixed plastics line, materials are sorted into fines and sieve overflow. The heavier fractions from the overflow are separated into four polyethylene fractions—natural, white, red/orange/yellow and other/color—and two polypropylene fractions—natural/white and other/color. PET is recovered from this stream and redirected to the PET line for further processing. The final sorted products are stored in dedicated bunkers before being baled for distribution.

The plant's design enhances operational efficiency by improving access to all areas, simplifying maintenance and incorporating a fully enclosed presort area and a control room with a comprehensive view of material flow and baler operations, Stadler says. The facility also prioritizes workplace quality, offering an open, well-lit environment.

Republic chose Stadler for the Indianapolis Polymer Center following their collaboration in Las Vegas. The new plant also incorporates additional processing steps to provide Republic with more flexibility in selecting markets for its recycled materials and expanding the range of accepted inputs.

Balar Equipment to operate under Enviro-Clean name

Balar Equipment, a Phoenix-based Vocational Trucks and Equipment LLC (VTE) dealership, now operates under the Enviro-Clean Equipment name, which is another VTE brand.

VTE says the move reinforces its commitment to providing products, service and support throughout the western U.S.

According to VTE, the Phoenix operation will align with Enviro-Clean Equipment's systems and customer-first approach while gaining access to expanded resources across the network,



including enhanced product availability, demo equipment and service support.

"This transition is a natural fit," Enviro-Clean General Manager Joey Pellecchia says.

An open house is being planned to highlight the expanded capabilities and celebrate the Arizona team's support of its customers as part of the Enviro-Clean network.



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3rd Eye, based in Chattanooga, Tennessee, has expanded its safety solutions suite with the introduction of the 360 Camera System and Reverse Automatic Braking Technology. The company says these advancements build upon its suite of safety solutions designed to enhance driver awareness, improve visibility and provide fleet operators with tools to help mitigate potential risks. The software additions:

- provide a real-time bird's-eye view of the vehicle's surroundings via the 360 Camera System
- integrate multiple camera feeds, displaying them alongside live video on a spacious in-cab monitor via the 360 Camera System
- provide visual and audible alerts before automatically applying the brakes if a potential hazard is detected behind the vehicle
- are designed to help fleet operators minimize the potential for collisions, reduce operational downtime and enhance protection for pedestrians, cyclists and workers in high-risk environments
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KOMATSU WHEEL LOADERS.

Komatsu, based in Japan with North American headquarters in Chicago, has added the WA475-11 and WA485-11 wheel loader models to its product line. The heavy equipment manufacturer says the two new models are versatile machines designed to move material efficiently and effectively. The wheel loaders:

- offer up to 12 percent lower fuel consumption, 21 percent more engine power and 13 percent faster climbing speed with the WA485-11
- offer up to 7 percent lower fuel consumption, 18 percent higher engine power and 40 percent greater climbing speed with the WA475-11
- include the Komatsu hydrostatic-mechanical transmission, which improves fuel efficiency and productivity
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		SMH Group www.smhgroup-us.com	41
		Stadler America LLC www.w-stadler.com	21
		Struktol www.struktol.com	28
		US Conveyor Technologies Manufacturing Inc. www.usconveyor.net	9
		Van Dyk Recycling Solutions www.vdrs.com	Inside Back Cover
		Vecoplan LLC www.vecoplanllc.com	29
		Vezzani www.vezzani.biz	7



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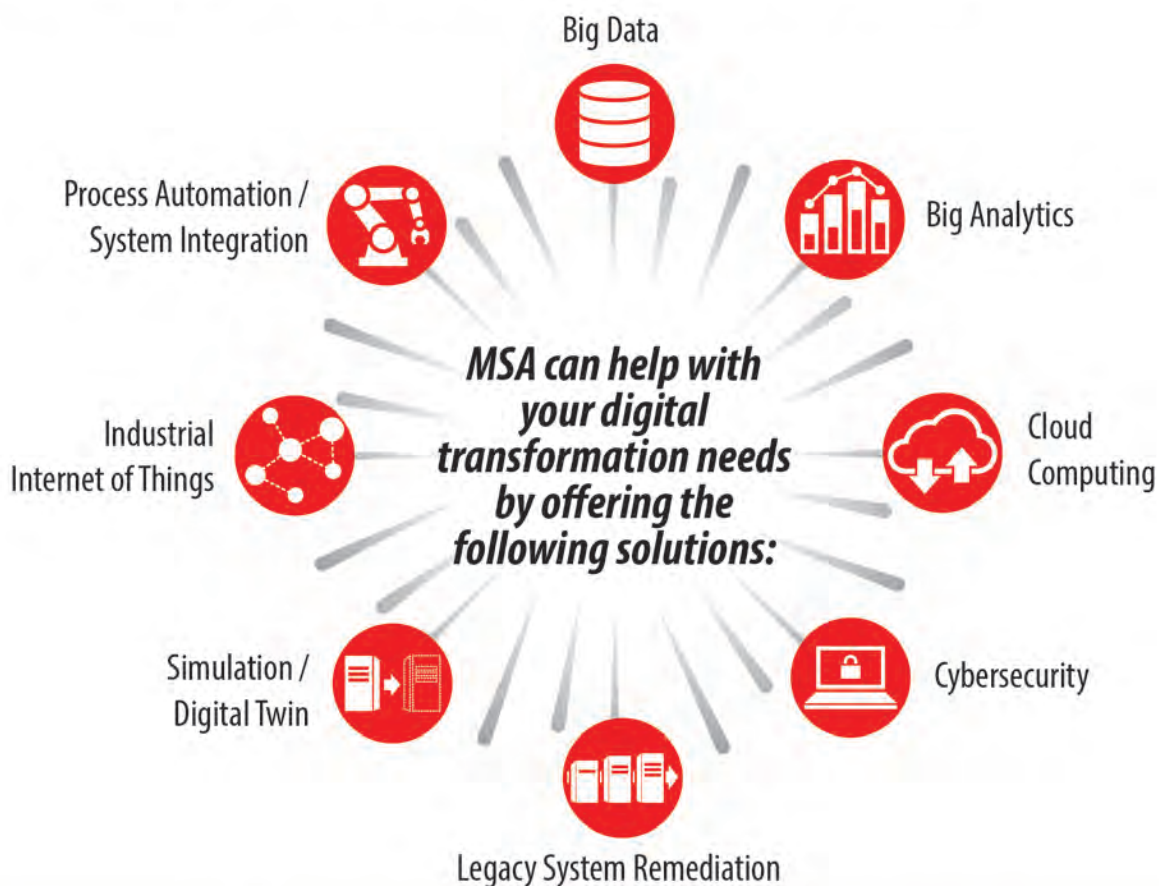
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Alyssa Knowlton

PROJECT COORDINATOR AT THE
ENVIRONMENTAL RESEARCH & EDUCATION FOUNDATION

Alyssa Knowlton's career path hasn't been linear, with six years working in zoos and aquariums before transitioning to waste and recycling, but her interest in sustainability has been consistent.

As a student at the University of North Carolina at Chapel Hill, Knowlton majored in biology and minored in environmental studies and marine sciences. She accepted a role in the education department of an aquarium in North Carolina after graduation, focusing on leading informal conservation and sustainability education programs primarily aimed at teenagers.

Working with the public piqued her interest in human behavior as it pertains to sustainability, which eventually led Knowlton toward a graduate focus in environmental, social and governance and corporate sustainability.

Today, Knowlton works at the Raleigh, North Carolina-based Environmental Research & Education Foundation (EREF) as a project coordinator. In two years at EREF, she has worked on various projects, including an ongoing equipment statistics program and a report on fires in the materials management sector.

However, a project she's most excited about involves grocery store packaging.

"We surveyed about 19 [grocery stores], and that meant going into the store and taking pictures of each of the shelves ... then taking all those pictures back and going item by item to identify what that grocery store product is and how many layers of packaging it has," she says.

In the following interview, Knowlton discusses opportunities for technological advancements in material recovery facilities (MRFs) and career opportunities for young professionals in the recycling industry.

RECYCLING TODAY (RT): What new technologies are you hoping to see the industry embrace more?

ALYSSA KNOWLTON (AK): As someone who didn't come from a waste background, I am constantly surprised by the advancements. ... One report ... I found really interesting was through Closed Loop Partners. They just released a report about small format plastic recycling, like water bottle caps or little plastic pieces you would see on a beauty product, and retrofits you can make to a MRF to better capture these pieces of plastic that have largely been lost in the recycling stream and in markets. They'll just get landfilled, or they're seen as contamination in a glass recycling setting, and they're trying to scale it at the moment and see the practicality of expanding this.

... Those types of advancements are really interesting because you're not necessarily changing anything the industry is currently doing. ... You're just refining what we're already doing to make sure we're doing our best.

RT: How can the waste and recycling industry recruit more young professionals?

AK: I'm constantly surprised at how many different fields [are in this industry], from operations to administrative to support the engineers who are needed for the waste and recycling industry to thrive. There are so many different opportunities for young professionals to get involved. Especially [in] research and development and AI [artificial intelligence] and machine learning—all of that is a really big space with younger generations as well. If you can incorporate that into what the waste and recycling industry is doing, it's a really cool intersection.

At EREF, we have the opportunity to get to know and hear about the students who were given EREF scholarships and the work they are doing. ... It's so interesting to hear them be so interested in this space and be so technical and really be able to see that they do have a career in this [industry].



“There are so many different opportunities for young professionals to get involved.”



Hear the full interview by visiting *Recycling Today's* podcasts section at www.RecyclingToday.com/tag/podcasts.

Do you know any new or young professionals in the recycling industry? Send suggestions to Tess Kazdin at tkazdin@gie.net.



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Avis Industrial is a private holding company focused on long-term growth, value creation and the continuous elevation of manufacturing capabilities across our portfolio. We believe that ongoing investment in our people, products and facilities is vital for achieving these goals. This core belief led us to the decision to formally integrate American Baler, Harris Equipment and International Baler into a single business unit: the **Harris American Company**.

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Sincerely,

Gregory King
President and Chief Executive Officer
Avis Industrial Corporation

D. J. VanDeusen
President and General Manager
Harris American Company

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Baxley, GA

- 50 years of operation at our 340 Jekyll Rd. location
- Multimillion-dollar infrastructure and fabrication modernization from 2021-2024
- Received Georgia Association of Manufacturers Chairman's Safety Performance award in 2021



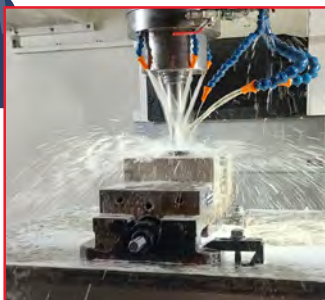
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- 136 years of operation at our 20-acre site downtown
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