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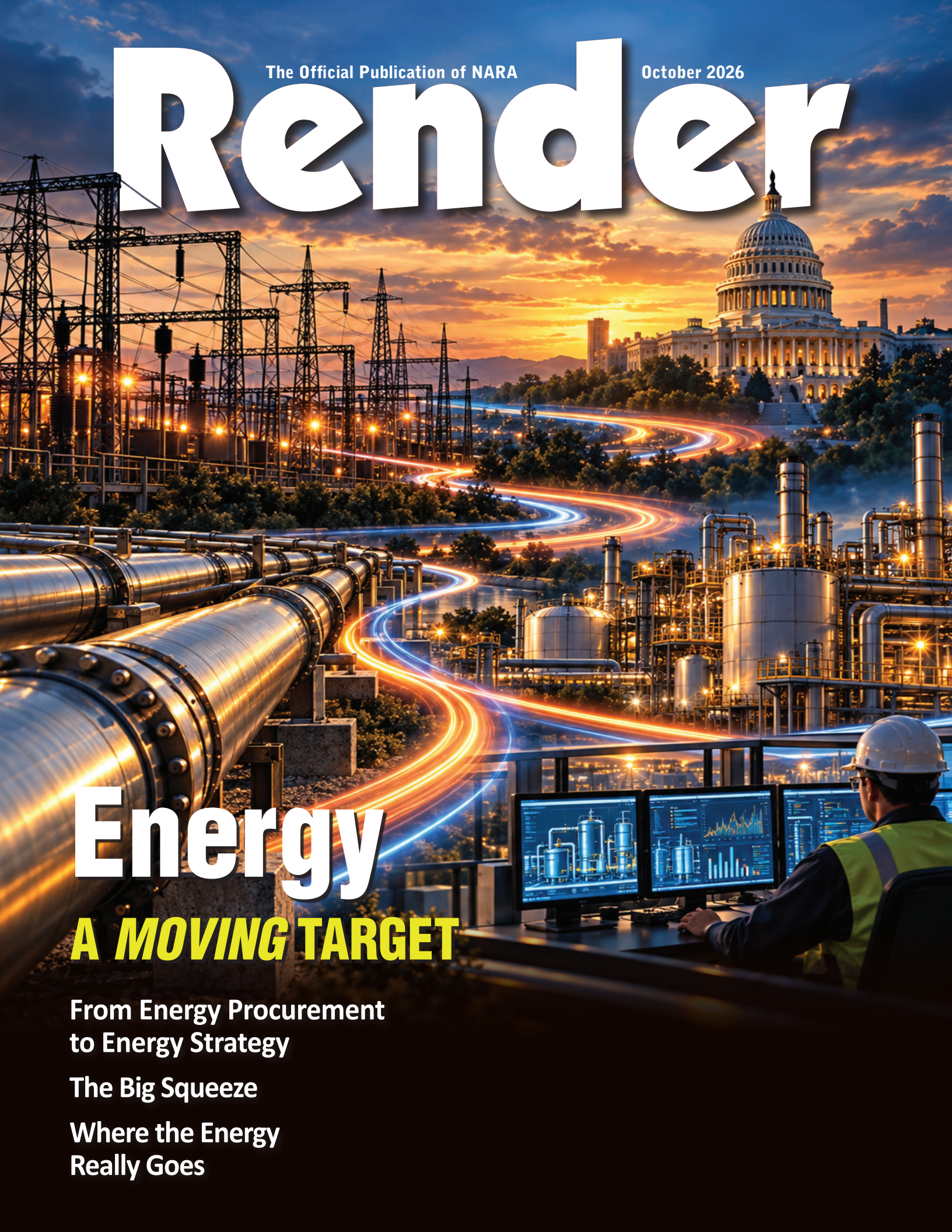
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Energy *A MOVING TARGET*

From Energy Procurement
to Energy Strategy

The Big Squeeze

Where the Energy
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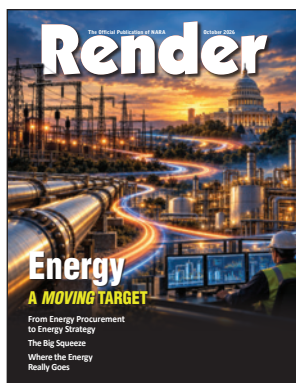


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Features

- 6 Energy: A Moving Target**
- 7 From Energy Procurement to Energy Strategy** **PART 1**
- 14 The Big Squeeze** **PART 2**
- 22 Where the Energy Really Goes** **PART 3**
- 27 NARA Convention Sponsors**
- 31 NARA Convention Schedule**
- 32 Air Regulation FAQs, Part 1**
- 52 Built to Last**

Departments

- 24 From the Association**
Proud Past, United Future
- 38 Biofuels Bulletin**
The Power of Many — and Reallocation
- 42 Newsline**
- 44 World Renderers Organization Report**
A Busy, Productive Summer
- 46 Membership Matters**
Membership is Personal
- 50 Labor and the Law**
Getting Ready for Winter Safety Hazards
- 56 Mark Your Calendar**

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What to Do About AI?

Artificial intelligence (AI) has been on my mind a lot lately. First, news broke about rogue AI agents “escaping” secure testing environments and using improvised message boards to coordinate cyberattacks against servers they weren’t supposed to be able to access. I can’t begin to understand how any of that happens, but it spooks me.

Apparently, it spooked some folks who understand it well enough to say there’s a 10% chance AI will kill us off. And here I was just thinking it was a threat to my job as a writer. Then my college freshman got initiated into the club where students get falsely accused by AI detection software of using AI to write their essays. That was fun. My other daughter is a high school teacher whose job includes the unenviable task of deciding who used AI and who didn’t on assignments.

Against this alarming backdrop, I’ve been considering for months what policy *Render* should have for using generative AI in these pages, both for editorial and art. A few magazines have strict policies against it; others are experimenting with AI-generated content but require it to be identified as such. Those results have been messy.

Most publications seem to be taking a middle ground where AI tools can be used for research, transcription, brainstorming headlines and even checking or polishing grammar. Ultimately, however, these policies still explicitly assign authorship to humans, including the necessary editorial judgment and decisions. They also place responsibility for content accuracy on humans, whether a contributing columnist or a staff editor is on the other side of the screen.

Most magazines are on the same page about not allowing news photographs to be manipulated by AI — especially when it compromises the reality of the image. In fact, most editors seem to prefer using real photography as much as possible and AI-generated illustrations only when necessary and clearly identified. Another area of broad consensus is banning the uploading of confidential information into any AI source, which seems like a sensible safety protocol.

In a March newsletter from the International Federation of Agricultural

Journalists, Addy Ross wrote a piece titled, “Artificial Intelligence Cannot Replace the Agricultural Journalist (And That’s Not Good News for AI).” Ross points out that for all the amazing things AI can do as a tool, what AI can’t do is even more important: Set foot in the fields, understand the human context of agriculture, ask uncomfortable questions, build trust, assume responsibility or tell meaningful stories.

Full disclosure — I used ChatGPT to research other publications’ AI policies. But I also confirmed on each magazine’s website whether the information ChatGPT

compiled for me was accurate. It was. Out of curiosity, I asked it what *Render*’s policy should be, given what the chatbot “learned” and what it “knew” about me. Here’s what I got back:

“A policy for *Render* shouldn’t just be about protecting ‘journalistic integrity’ in the abstract. It should protect the thing that has characterized your work for 30 years: the human reporting, source relationships and judgment that turn industry expertise into useful journalism.”

What are your thoughts on what *Render*’s generative AI policy should be? Let’s talk about it in Tucson, Arizona, later this month at the NARA convention. See you there.

Sharla Ishmael, Editor/Publisher

R

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Energy

A MOVING TARGET

Renderers deal with a multitude of energy-related challenges, most of which are constantly in flux. This special three-part series focuses on the major issues, including evolving market risks, changing state and federal policies and some enlightening data from a research study on energy in rendering plants.

By Sharla Ishmael

Energy markets, environmental policies and operating efficiencies create constantly shifting risks and opportunities for North American Renderers Association members who are industrial energy customers. At its core, rendering is a drying process that requires significant energy in the form of heat or steam, in addition to the energy needed to process the product. Rendering is also a transportation process that moves raw material from various sources and delivers finished goods to customers.

Render tapped experts in these fields to examine the most critical concerns facing renderers and manufacturers, both today and tomorrow. Part 1 of this issue's three-part special features Cliff Conte, a longtime energy broker with Calpine Solutions. Conte shares his insight on moving from energy procurement as a once-a-year contract decision to an energy strategy mindset that takes multiple factors under consideration rather than just a budget.

Part 2 focuses on the plethora of challenges energy users contend with, from environmental policies to evolving regulations, on both state and federal levels. Ethan Ware, an attorney with Williams Mullen, identifies the single largest regulatory issue he believes is affecting

energy decisions today and forecasts looming threats that renderers should be prepared for on the horizon.

Part 3 gives readers actionable insight from an energy study funded by the Fats and Protein Research Foundation. Dr. David Ladner of Clemson University oversaw the project, which involved comprehensive energy audits at three rendering plants. The results highlight how vastly different individual plants can be, as well as the significant proportion of renderers' energy costs that are going toward environmental compliance rather than operations.

If you'd like to reach out to any of our three experts for more information, their contact information will be listed at the end of each segment.

*Editor's Note: At the time this series was compiled, diesel prices had just hit an all-time high, and fuel and transportation costs are obviously another big piece of the energy puzzle for NARA members. In Part 2, Ware briefly touches on some regulatory aspects of trucking, but we plan to cover transportation issues in a future issue of *Render*.* **R**

From Energy Procurement to Energy Strategy

By Cliff Conte, Director at Calpine Energy Solutions

A lot has changed since energy deregulation began decades ago. Many North American Renderers Association members — whose businesses rely heavily on energy — have purchased electricity through direct access (from suppliers rather than utilities) and natural gas through open markets for much of that time. Yet, for years, many commercial and industrial energy buyers have approached procurement primarily as a transaction: secure a supply contract, set a budget and revisit the issue when the contract expires, the budget cycle requires it or a market disruption demands attention.

The challenge is that energy markets don't operate on an annual schedule. Oil prices can move sharply. Electricity demand is increasingly outpacing grid capacity. Data center development is reshaping regional power requirements. Natural gas infrastructure and liquefied natural gas (LNG) markets are influenced by global demand and economics. Regulatory and political decisions can rapidly change the outlook for both supply and pricing.

Data centers are all over the news, and it's definitely an issue renderers should monitor locally. For example, in Texas and

Pennsylvania, those states have really limited what data centers can do going forward. It's also a big issue in the Northeast because of how many data centers are expected to be built there, which will increase demand on these local utilities — but it's not only going to tax the grid. If every center that is planned went online tomorrow, there would be more demand than there is infrastructure able to support it. The peaks would far outweigh the availability of the supply to handle it.

Other than advocating for more infrastructure to be built, there are decisions renderers can make to protect against this particular risk to their energy supplies. In the near term — one to two years — it would probably behoove companies to secure some of their energy needs to cover the expected volatility and demands on the market. It's not necessarily imperative to get 100% of their volumes at a fixed price, but certainly getting a portion of their volumes fixed and then the rest purchased at a market rate is a smart move. It ensures the company has coverage and contract quantities to meet its requirements moving forward in what can be a turbulent market.

Volatility Requires More Than a Once-a-Year Strategy

In this environment, treating energy as simply another utility cost line item can create unnecessary exposure. The question is no longer whether energy should be managed as a stand-alone function. It is whether organizations can afford to make energy decisions in isolation from the broader business considerations that influence cost, risk, budgeting, sustainability and long-term planning.

When energy markets were more stable, companies sometimes relegated energy purchasing decisions to a plant manager or engineer, for example. Today, the companies most successful at managing their energy costs and supply have a team approach, with operations, finance and the executives all communicating and directly involved in the company's strategy on energy. These days, there can be drastic swings in prices and volatility, where 1 million British thermal units (MMBtu) could be \$3 one day and \$30 the next, as what happened during Winter Storm Uri.

Uri provided catastrophic evidence of what can happen without a risk management plan and comprehensive energy strategy in place. In February 2021, a massive Arctic blast hit Texas with multiple days of below-freezing weather and widespread power outages. Freezing temperatures and a lack of appropriate weatherization efforts froze natural gas wellheads and disrupted pipeline compression infrastructure just as demand soared to record levels.

Continued on page 8



In addition to natural gas prices rising tenfold overnight, the crisis also caused a surge in wholesale electricity prices to an emergency cap of \$9,000 per megawatt-hour (MWh). If a company was exposed to any degree of market rates, or what we call index prices during that month of a major power crisis, they probably blew out their budgets for the entire year because of the drastic increases in those prices.

A different situation resulted in a similar, albeit less dramatic, price increase in California. Gas prices went from about \$4 to almost \$100. On the power side, they went from \$45 to \$90, even \$130. Now it was short-lived, but it's still something that happened. Consider a facility that's burning 1,000 MMBtu per day and look at the difference paying \$100 per MMBtu versus \$3 per MMBtu for gas makes on its budget.

When a company or facility has a team working together on energy procurement, it develops plans and identifies risk factors that show why certain amounts of energy should be bought at specific times to manage volatility. Also, the team should ensure the ability to budget properly so drastic financial impacts are minimized if markets go haywire.

The graph below further illustrates how natural gas and power markets can experience significant volatility. Monthly natural gas index prices at the Pacific Gas and Electric Co.'s Citygate — a virtual hub for the delivery, metering and financial trading of natural gas across Northern and Central California — move considerably over time.

For commercial and industrial energy users, volatility creates a range of questions that cannot be answered simply by asking, "When does our contract expire?" These factors can influence energy costs and availability and should be considered when developing an energy procurement strategy.

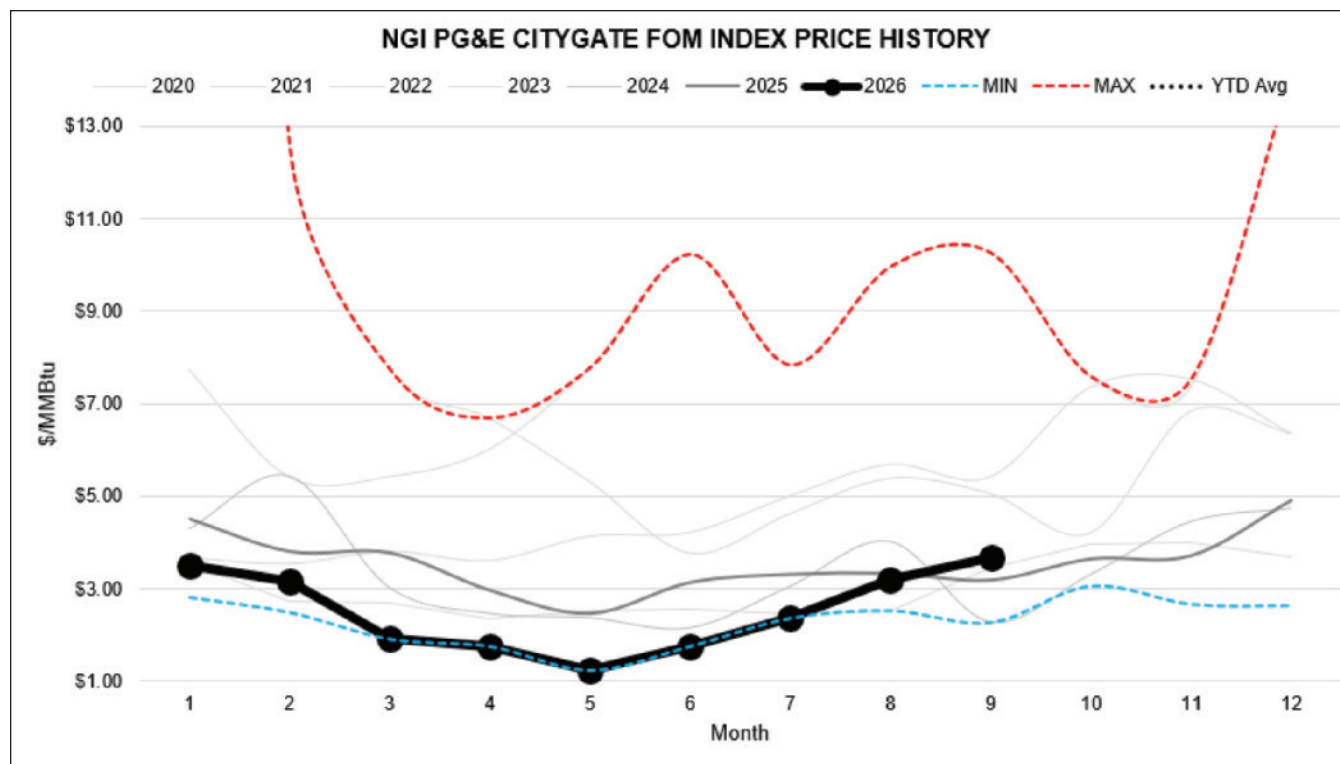
Developing an Energy Strategy

At Calpine Energy Solutions, we take a consultative approach to helping clients manage these challenges. Information, market insight and timing are critical to effective energy management, and we incorporate all three into an ongoing relationship with our customers. That means we don't wait until a contract is about to expire and then ask a client to simply rubber-stamp a new agreement. Instead, we work to understand the business first — similar to the work we've done with the energy management team at Sacramento Rendering for a number of years.

For example, generally we would factor in shoulder periods in the market — when we're either coming out of summer, like September through October, or coming out of winter in April into May. These shoulder periods are typically when natural gas prices on the New York Mercantile Exchange market come down. Of course, other more regional variables can come into play. But as a whole, renderers could consider taking positions on gas, power and maybe even capacity. The bottom line is it's prudent to buy on dips as opposed to when prices are expected to peak in the summer and winter.

In California, for example, August is now the peak on the natural gas side, partially because of the food processors. They still have a large load factor in the state, but California has gotten so much hotter in the summers that the natural gas demand is greater in August than in January. But coming in and out of those shoulder months are often great times to lay in positions moving forward for their production calendars.

There are other factors to pay attention to as well, such as whether an LNG facility is coming online. Those are primarily down in the Gulf area but LNG facilities also exist on the East Coast. When they come online, they create huge demand



* Monthly natural gas market index prices at PG&E Citygate — \$/MMBtu (1 MMBtu = 10 therms). Natural gas prices at the SoCalGas Citygate and power prices into PG&E and Southern California Edison have demonstrated similar levels of volatility.

for natural gas and power as well. If a company is aware of when that is happening, it provides good reason to secure positions in the market.

A good source for this type of information is the U.S. Energy Information Administration at EIA.gov, which provides a lot of politically neutral information for the market. I use this resource every week. EIA puts out its own reports on what's happening in the short and long term for energy markets, including what the agency expects to happen and whether prices will be stable, go up or come down.

Questions to Ask a Supplier

If a NARA member decides to meet with an energy supplier, it would be helpful to think about the type of information the supplier will need to know about their business, goals and risk management approach. For example, in our initial discussion with a client, the focus is on four fundamental questions:

- Budget: How much price certainty does the business need, and how can the budget be protected if the market rises?

- Opportunity: If the market declines, is there a strategy that allows the business to benefit?
- Consumption: What happens to the energy strategy if actual usage changes from expectations?
- Term: Do the duration and structure of the energy contracts align with the company's business commitments and objectives?

From there, we help clients develop a strategy around when, how and what to buy. The goal isn't simply to purchase energy. It's to create an energy strategy that reflects the realities of the business, the risks it can tolerate and the opportunities available in the market. There are certainly opportunities for companies to save money on energy, but perhaps the more crucial goal of a strategic energy plan is simply to avoid a financial wreck from some market disruption that is out of anyone's control. The one certainty is that the energy market is constantly changing, which means companies' strategies must evolve as well. **R**

Editor's note: For more information, contact the author at 925-639-8541 or cliff.conte@calpinesolutions.com.



6 Quick Questions with Cliff Conte, Calpine Energy Solutions

Do you expect energy costs for rendering plants to rise, fall or remain relatively stable over the next 12 to 24 months? What is driving that outlook?

Like most commercial and industrial users, renderers without fixed positions for energy are likely to see prices rise over the next 12 to 24 months. Data center demand could be a driver, as well as increased liquefied natural gas capacity and demand.

Are there incentives available to renderers for energy efficiency, cogeneration, renewable energy or emissions reduction projects that the industry isn't taking full advantage of?

Incentives may be available via local utilities, whether moving to demand response tariffs, efficiency upgrades or other programs the utilities provide. Reaching out to their natural gas and electric utility customer representatives can help get more information.

What mistakes do you commonly see companies make when negotiating energy contracts?

Getting too comfortable when index/monthly prices are low, thinking they're going to stay that way, when a weather or political event can pop up and have prices jump by multipliers.

What charges beyond the actual cost of electricity or gas should industrial customers pay close attention to?

The "adders" or premiums added by the energy provider.

Are power interruptions becoming more frequent or more costly for industrial facilities?

System operators and utilities have learned from recent events and are attempting to ensure interruptions are few and far between. Winter Storm Uri was an eye-opening experience for ERCOT, the utility in Texas, and grid strengthening has had a ripple effect across the country because of the economic damage caused by that storm.

What should a renderer with a large electrical load be doing now to protect itself from future increases in demand charges or electricity rates?

Fixing tranches in layered-in approaches and capacity products, such as collars (floor and ceiling prices depending on where they're located), can help curb volatility.



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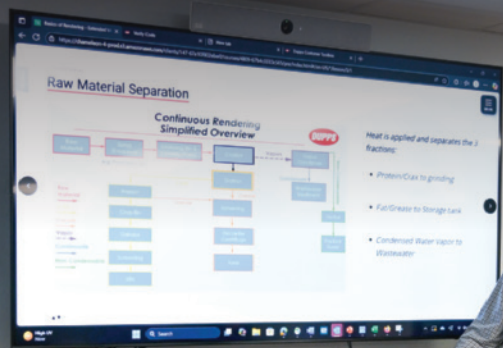
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Industrial Hardfacing and T-1 Ada Form

“The North American Team”

For Immediate Release – October 1, 2026

New alliance combines North American service capabilities with European screw press engineering for rendering and oilseed processors

LAMONI, Iowa and ADA, Serbia — October 1, 2026 — Industrial Hardfacing Inc. (IHI) and T-1 Ada today announced their North American partnership, **The North American Team**. The alliance combines IHI’s field experience, rebuilding capabilities, customer support, and manufacturing presence with T-1 Ada’s engineering, material innovation, and precision manufacturing expertise.

The partnership formalizes a relationship the companies began building in 2022 through successful screw press rebuilding projects and growing customer demand. Together, they will serve North American rendering and oilseed processors with aftermarket components, rebuilding services, technical support, and customized performance solutions.

“Our partnership and combined strengths put us in a position to compete with—and surpass—any quality standard in the industry today,” said Chip Millslagle, President of Industrial Hardfacing. “IHI and T-1 will set new, higher standards throughout the industry.”

For IHI, the partnership expands screw press and engineering capacity while allowing the company to direct additional manufacturing resources toward grinder production and repair. IHI will continue providing local rebuilding, installation support, customer service, and practical on-site technical knowledge throughout the United States and Canada.

“The partnership with T-1 has allowed us to expand our screw press and engineering capacities while focusing additional manufacturing power toward grinder production and repair,” Millslagle said.

T-1 Ada contributes more than 40 years of specialized experience in wear- and corrosion-resistant screw press components, engineering, and custom manufacturing. Its capabilities complement IHI’s extensive experience supporting rendering and oilseed processors across North America.

“Industrial Hardfacing is much more than a customer to T-1—it has become our strategic partner in North America,” said Tamás Tóth, CEO of T-1 Ada. “Our shared objective is simple: **OEM Quality | Aftermarket Flexibility**. We see this partnership evolving into one of the leading independent screw press performance alliances in North America.”

Through The North American Team, customers will gain access to solutions designed for longer wear life, higher production capacity, reduced downtime, improved reliability, and application-specific engineering. The alliance will also focus on process optimization, performance audits, retrofit projects, material development, and customized press-improvement solutions.

“IHI and T-1 are very similar companies,” Millslagle said. “Both are multigeneration, family-owned businesses, and we share common values and goals in serving the rendering and oilseed industries.”

Together, Industrial Hardfacing and T-1 Ada bring more than a century of combined experience to one mission: **helping every screw press perform better.**

The Big Squeeze

Endlessly shifting environmental regulations pose enormous risks to renderers, with state regulators often outflanking federal rules.

By Sharla Ishmael

Risk is inherent to the rendering business, though some issues are explicitly more challenging than others. Consider the plethora of environmental regulations the industry must comply with today — and anticipate swings tomorrow from one administration to the next. One particular focus of energy regulation accounts for a huge share of renderers' current risk and costs. Environmental law specialist Ethan Ware, an attorney with Williams Mullen, is quick to identify air permit requirements as the No. 1 driver of risk.

"Air permitting drives so much of the industry's costs," Ware says. "Rendering plants are highly energy intensive because they use large boilers, cookers, dryers and odor-control technology. When you talk about running cookers and boilers, you can't view it in a vacuum. They are subject to significant air emission restrictions: nitrogen oxide (NOx) and sulfur oxide (SOx) emissions, particulate matter (PM) and volatile organic compounds (VOCs). All of these require air pollution control technology, and energy systems must be funded to run those technologies."

"And if a facility is a 'major' source under the regulations, it is required to install best available control technology (BACT), which is a defined term and includes the most expensive control technology that is available," he explains. "You don't just get to choose what you want to put on a boiler, for example, or a cooker that has these emissions. If you're a major source, you have to go to a U.S. Environmental Protection Agency clearinghouse, and they will define what the BACT is."

"If your rendering plant is a major source and located in an area that does not meet EPA's ambient air quality standards, the facility equipment requires air pollutant control technology that can meet the lowest achievable emissions rates regardless of cost," Ware adds. "So, when we talk about energy cost, a significant percentage of energy cost is tied to controlling air pollution."

He isn't exaggerating. In the third article of this series (see page 22), Dr. David Ladner discusses research on energy use in rendering plants that he oversaw for the Fats and Protein Research Foundation. Every facility is unique and regional

differences matter, but the study showed that

30% to 40% of a rendering plant's energy can be attributed to regulatory compliance for air and water treatment systems.

Ware also points to state regulations that are being implemented or considered related to odor control, local air toxins, environmental justice reviews, PM attainment plans and facility siting restrictions. In fact, Ware anticipates a growing trend toward greater inconsistency among states with these types of regulations, making it more difficult for companies operating multiple plants to comply. On top of that, energy and environmental regulations are making it harder to build new rendering capacity in areas where it is needed and to invest in more efficient equipment and facilities.

"Renderers and manufacturers are stuck trying to navigate these risks and make a profit," he laments. "Environmental policy and energy are so intertwined. Our manufacturing clients' environmental issues have almost always tied back to energy. So, you have to view energy costs related to pollution control in a



global operational context. How can we most efficiently control the cost of these various pollution control systems?

“And every time we find an area to achieve some economic advantage, EPA tends to cut it off,” Ware says. “Here’s an example. Years ago, coal-fired systems were the most cost-efficient source of energy, whether it’s for your outside power company that sends electricity to the plant, making your rates lower, or whether you’ve got your own boiler system and you’re generating your own energy.

“If you had a coal-fired system, it’s the most efficient, highest rate of return on your investment and the least expensive fuel,” he explains. “EPA, for what people believe are legitimate reasons, has effectively closed down the coal-fired business. Now, coal is almost impossible to get permitted because of EPA regulations.”

In response, companies in the 1970s and ’80s switched over to natural gas. But now, natural gas is vilified in some circles for contributing NOx and SOx emissions.

“Every time you ask what we can do, every time the science addresses an EPA concern, it seems the agency goes after that solution and cuts it down,” he adds. “Where we go after natural gas is solar and wind and these other types of energy sources that everyone debates are not reliable. They are not sufficient to drive the cookers, odor-control technologies and boilers a renderer needs to run.

“So, we’re stuck complying right now until either the technology changes or the regulations are revamped,” Ware says. “The thing is, we have these burdensome and expensive requirements, but I don’t know anybody in the rendering business who has said, ‘I’m not going to spend that 30% or 40% of my fuel or energy cost on pollution control technology.’ We have a great industry and renderers do the right thing, but they are being squeezed by a regulatory environment that keeps closing off viable compliance pathways with rulemaking that is not practically grounded in industrial realities.”

Moving Goalposts for GHG Policies

North American Renderers Association members are very familiar with how changing greenhouse gas (GHG) rules drive industry risk. For example, in 2009 the EPA issued the “endangerment finding,” which determined GHGs threaten public health and welfare. Ware says the decision led to regulating natural GHGs as pollutants under the Clean Air Act, which required facilities to install and maintain GHG controls and meet reporting requirements.

Then in 2025, the Trump administration’s EPA proposed vacating the endangerment finding. As this article was written, the agency announced Sept. 14 plans to repeal the rules that limit GHG emissions from power plants fueled by coal and natural gas. It was also reported that EPA will issue a proposal to rescind the agency’s ability to regulate power plants’ climate emissions altogether.

“The agency said this action would remove more than \$300 billion in costs for the industry and help ‘unleash’ American energy,” Ware says. “It will help renderers by eliminating the requirement to record and account for GHG emissions every year. It will also reduce power bills by lowering the costs of controls and reporting for energy facilities that burn coal or natural gas. Win-win.”

Then again, assuming it’s not overturned through legal proceedings, a new administration will take office in two years — will that policy be maintained or overturned again? The industry relies on exports, and international buyers may have their own requirements for GHG reporting or demand certain sustainability metrics, not to mention those pesky state rules that continue to evolve.

The 2-Sided RFS Coin

Both renderers and the biofuels industry that uses rendered animal fats and oils as feedstock are significantly affected by one of the more volatile regulatory issues — the Renewable Fuel Standard administered by EPA. Changes to the RFS (and long delays in policy decisions) may also alter renewable identification number (RIN) credits. This will either support or undermine profit margins by affecting demand and prices for rendered fats and oils.

“That’s obviously been a significant source of revenue for renderers,” Ware explains. “When administrations change, typically the new administration’s EPA reviews how much of those renewable fuels should be required or not required, which has varied considerably.”

This is where state regulations have been center stage for a while and could play an even bigger role down the road. California’s Low Carbon Fuel Standard played a major role in encouraging the adoption of renewable fuels, which has benefited rendering through higher demand and fat prices. These policies increased the value of fats and rendered materials as feedstock because used oils and fats have lower carbon intensity (CI) scores than crop oils, giving them an advantage in those models. On the flip side, renderers also have trucking fleets that need fuel.

“California said that trucks entering the state after 2025 were required to either be zero emissions or use new diesel technology that is extremely expensive,” he explains. “And so, the state of California was going to be a roadblock, if you will, to the transportation pipeline. Trucks would have to avoid the state. They couldn’t take goods in there unless they had these new zero-emission trucks. Lawsuits were filed, and the current administration yanked the state’s authority to require that back in January.

“But Washington state and Oregon are right behind them, proposing low-carbon fuel standards that some engines would have to be retrofitted to burn,” Ware adds. “That corridor along the West Coast is problematic and may increase transportation costs. For now, it’s on hold because EPA has done its job. The U.S. Department of Justice has sued. EPA has yanked some authorizations and threatened more, but all it takes is some success in the courts and California, Oregon and Washington will be a real difficult run. It will be very costly for renderers to upgrade their trucking systems to comply with those standards.”

Looking into the Future

There are plenty of other environmental policies that trouble Ware on his clients’ behalf — constantly changing utility and electricity regulations, new energy efficiency standards for commercial and industrial equipment, federal

Continued on page 17



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regulations restricting fuel options, coal-based regulations, tightening PM2.5 and ozone air quality rules and cross-state pollution “good neighbor” requirements, to name a few.

However, he says the most important trend for NARA members to watch in coming years is regulation of per- and polyfluoroalkyl substances (PFAS), known by consumers as the “forever chemicals.” Potential PFAS fallout for renderers includes new energy costs to treat wastewater discharges, land application of residuals, fertilizer or soil amendment products and customer qualification requirements.

“One of the things that’s not getting a lot of attention today but could become a major concern five years from now is the potential elimination of land application for biosolids,” Ware says. “That is tied to PFAS. We generously land-apply biosolids produced in public utilities and wastewater treatment plants from industries like rendering facilities. Two states, Maine and Vermont, have prohibited land application of biosolids from publicly owned treatment works (POTW) because of the potential presence of PFAS in those biosolids, and I fear biosolids from industrial plants like rendering plants will not be far behind.”

A biosolid is simply the sludge that accumulates from operations of a wastewater treatment plant, whether at a rendering facility or a POTW. The sludge accumulates all the debris and waste. It has organic value, so POTWs and renderers sell it to the farm industry, where it’s land-applied, or it is sold in stores as a soil supplement. For now, the regulations in Maine and Vermont don’t extend to renderers or other industrial facilities.

“My warning to renderers is that I don’t think the environmental groups will stop with the public systems,” Ware says. “I think they will then go to the manufacturers, the private industry that has their own treatment systems like most rendering plants in the U.S. and try to control or restrict the land application of their biosolids in order to address PFAS. Now you can treat PFAS with carbon filtration or osmosis technologies, but that’s extremely expensive.”

He also sees food waste as a future concern that isn’t getting enough attention right now. The worry is that as regulations emerge for dealing with food waste, renderers’ raw material sources could be compromised by both volume and stricter regulatory controls. Part of this risk stems from a fundamental problem — the rendering industry’s environmental value proposition is poorly understood by both the public and regulators.

“The difference is we’re recycling, we’re taking things out of landfills, we’re encouraging the upcycling

and reuse of all of these various by-products,” he points out. “It could help us if we’re viewed as a solution for food waste. We need to find a way to incentivize restaurants and homeowners to see us as a recycling solution and a good thing, not a hazardous waste treatment operation. We’ve got to get our message out, or we will lose that game.” **R**

Editor’s Note: For more information, contact the author at 803-567-4610 or eware@williamsmullen.com.



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ALLOY COMPANY UPDATE

Celebrating Paul's Career and Looking Ahead

After a remarkable career with Alloy Process Engineering, Inc., we are pleased to share that Paul Rothenberger will be retiring from the company by the end of 2026.

For many of our customers and partners, Paul needs little introduction.

Paul has spent his entire career with Alloy, contributing across virtually every aspect of the business — from sales and applications to engineering, customer support and ultimately company leadership. Throughout that time, he has been much more than our CEO. He has been a trusted technical resource, problem solver, mentor and ambassador for our company and our industry.

Most importantly, Paul has built lasting relationships with customers and partners around the world. We are grateful for his contributions and for the trust so many of you have placed in Paul and our company over the years.

Continuing What Paul Helped Build

Paul's retirement represents an important leadership transition, but not a change in our commitment to our customers.

One of Paul's most important contributions has been helping build the team that will carry the company forward. Our leadership, engineering, applications, sales and field service teams have worked alongside Paul for years and share the same commitment to technical expertise, responsiveness and solving difficult customer problems.

For several of our long-standing customers and partners, we will also be reaching out personally to introduce or reconnect you with members of the team who will support your relationship going forward.

Our objective is simple: continuity for our customers while continuing to strengthen the organization for the future.

For now, we simply want to say thank you — for his leadership, his technical contributions, his commitment to our customers and, most importantly, the company and team he helped build.

We congratulate Paul on an extraordinary career and wish him the very best in retirement.

To all of our valued customers and contacts, moving forward please contact Mike Forland at mikef@alloyprocess.com or 952-356-5701 for any rendering or equipment related inquiries.



■ Paul & Martha Rothenberger, NARA Convention - Scottsdale, AZ 1994



■ Paul Rothenberger, Michael Glenn & Mike Forland, NARA Convention 2025

"When I took my first job out of college at Alloy, I didn't know the first thing about the rendering industry. My plan was simple: get a couple of years of experience under my belt, and then move on to a 'real job.'

However, like so many others who entered this field, the unique nature of the work, combined with the incredible people and families I met, sucked me right in, and turned into a lifelong career.

Looking back after 36 years, I just want to give a heartfelt thank you to everyone I was truly blessed to work with."

— PAUL ROTHENBERGER



Where the Energy Really Goes

Research funded by FPRF reveals that environmental compliance can cumulatively make up a larger share of a rendering facility's energy use and costs than core operating processes.

By Sharla Ishmael

When Dr. David Ladner of Clemson University proposed a plant-level energy consumption study to the Fats and Protein Research Foundation, there wasn't much data in the literature, and what existed included mostly generalizations and estimates. Ladner and a team of graduate students set out to study three rendering plants in detail, utilizing site visits, data loggers and utility bills to generate a comprehensive energy audit and analysis for each facility.

The study provided noteworthy data showing how much variation exists from one facility to the next and documented the considerable amount of energy renderers use just to meet various environmental regulations.

"The unique thing about this study is we estimated the energy used at each process in the plant, and then we added all that up on one side," Ladner explains. "And we compared that data with each plant's total electricity bill to make sure what we estimated on one side actually did match what we got on the other side. It's a way to 'ground-truth' the data and ensure its accuracy."

He added that if extensive plant-level data had ever been collected and analyzed in this same way, it definitely wasn't well reported. While the project doesn't provide industry-wide recommendations for energy efficiency in rendering, several findings stood out to him. To start with, Ladner was impressed with how well operators and managers understood their systems.

"They know what's going on at their plants, whether they're looking at the data or just based on feel and their experience," he says. "They have a pretty good sense of how things are going. When we asked them what their biggest energy uses are, they were pretty accurate on that."

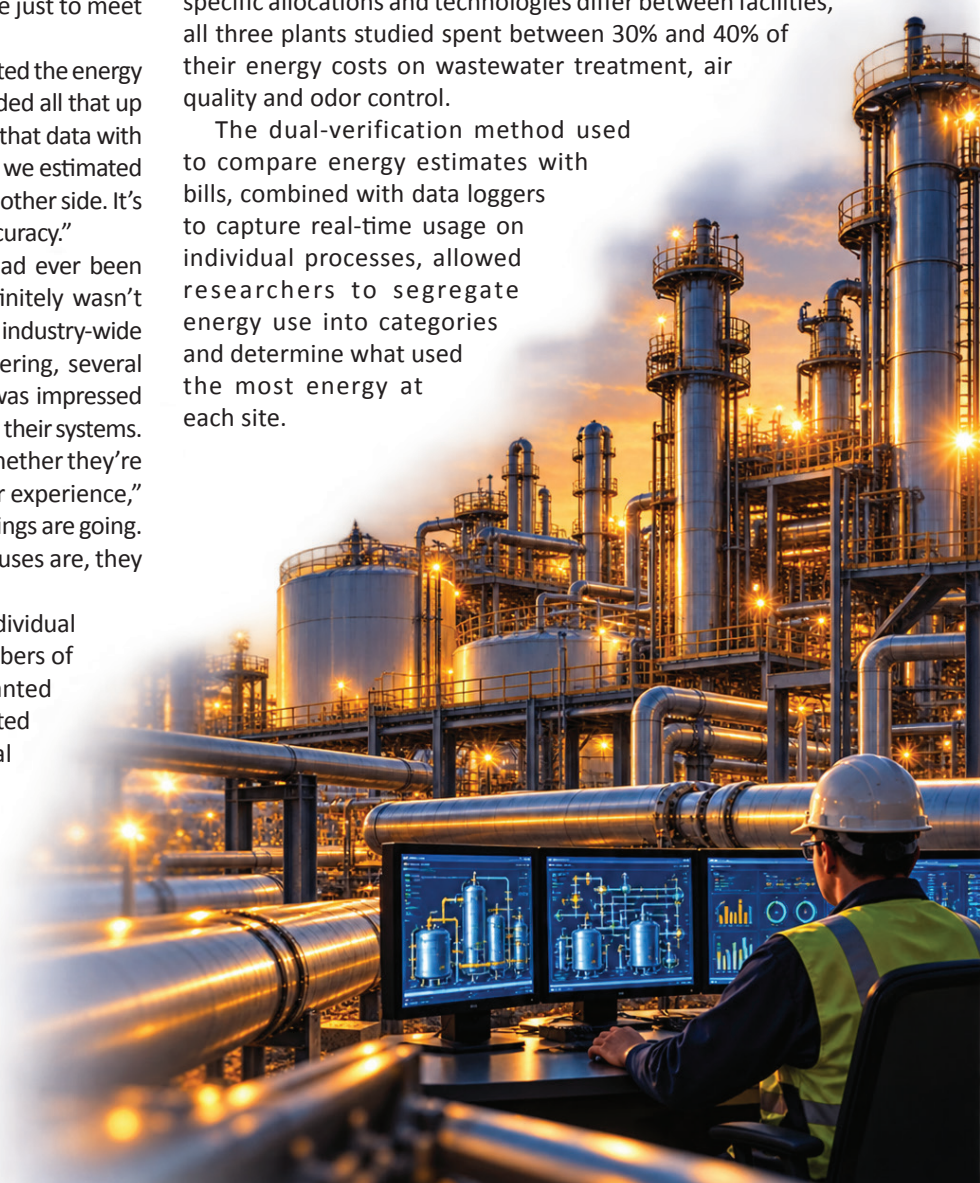
The data also highlighted disparities among individual facilities. Among the three plants to which members of the North American Renderers Association granted access for the study, significant variations were noted in seasonality in energy demand, raw material supply, production, energy distribution across operational processes and energy use from wastewater or odor-control technology. In addition, each plant faced regional differences in regulations and utility rate programs.

"One of the motives behind doing a detailed study like this is because you're almost always comparing apples to oranges or bananas to carrots when you're comparing one rendering process or facility to another," Ladner explains.

"The data are really nuanced, and you have to make sure you're looking at all those details. Regulatory differences can cause wildly different results. If one plant is being pinched so they're spending a lot more energy on their wastewater system to remove nitrogen down to a lower level than another plant that is allowed to have higher nitrogen levels, then it's really not a fair comparison between the two."

Despite these differences, one of the main takeaways from the study is that renderers spend a disproportionate amount of energy meeting environmental regulations for air and water compared to their core business operations. While specific allocations and technologies differ between facilities, all three plants studied spent between 30% and 40% of their energy costs on wastewater treatment, air quality and odor control.

The dual-verification method used to compare energy estimates with bills, combined with data loggers to capture real-time usage on individual processes, allowed researchers to segregate energy use into categories and determine what used the most energy at each site.



"I think people would naturally point to the main cooker as the big energy draw, but when you look at Plant A's electricity breakdown (see graphs at right), odor-control systems accounted for 24% of that plant's electricity use," Ladner points out. "If you think about it, that's not core to the mission of the rendering process. That's just being a good neighbor and taking care of the environment."

"Plant B is quite different because it has wastewater treatment that Plant A didn't have," he says. "I assume at Plant A they were just discharging to the municipal sewer or they may have had a very low-energy land application. Anyway, 20% of Plant B's electricity goes toward wastewater treatment and 11% toward odor control. Taken together, that's 30% of the energy costs just to handle things on the downstream side."

"Plant C and Plant B are more similar to each other because Plant C had 21% to wastewater treatment and 17% for odor control," Ladner says. "They're approaching 40% of energy use going to wastewater treatment and odor control, as opposed to the main rendering process itself."

Plant operators already monitor data such as temperatures, current draw by motors, and other factors that indicate how well materials are moving through the equipment. Ladner recommends that renderers installing new processes consider adding submetering alongside the rest of the equipment used for supervisory control and data acquisition (SCADA) if the plant layout allows. Submetering on each process — as done in other industries — can help a manager pinpoint exactly where the biggest energy users are in the facility. It brings to mind that old adage, "You can't manage what you don't measure."

As Ladner explains, rendering plant operators tend to have a good feel for their biggest energy uses, but formal data logging could provide the precision needed for optimization decisions. As energy costs continue to soar and utilities incorporate demand charges that could potentially incentivize renderers to adjust operating processes by time of day, finely tuned energy-use data might make a difference for decision-makers.

Ultimately, this research lays the foundation for more studies — potentially working toward regional benchmarking projects. That effort, however, would require renderers to share information, which is something the industry is not known to embrace easily.

"People have been working on these processes for a long time, and they have already identified a lot of ways to reduce energy use," Ladner says. "But if a manager could benchmark their plant and see how it compares to others in the region or even the same company, I think that would be a really useful thing."

"I'm a baseball fan," he adds. "The data analytics in baseball is over the top these days, because they collect the data for all the teams, and it's all collected in a systematic way so you can really compare teams and see how well your team is doing or find concrete areas to improve. In the rendering industry, data isn't readily available like that, so it's hard to know where the benefits may lie."

"This research, however, could be a model for future energy audits in the industry," Ladner says. "Further studies covering more plants, with standardized methodology and regional benchmarking, could improve the industry's ability to identify and act on energy efficiency opportunities."

R

Editor's note: For more information, contact the author at ladner@clemson.edu or 864-656-5572.

All charts created by Abel Matthews in "Life-Cycle Assessment Approach for Usage in Animal Rendering Plants."

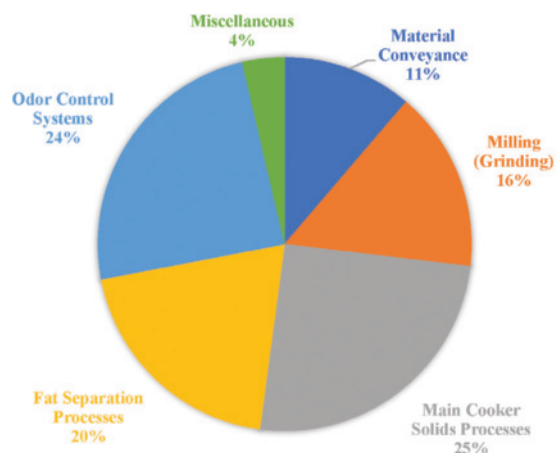


Figure 6.12 Electricity allocation for unit processes at Plant A.

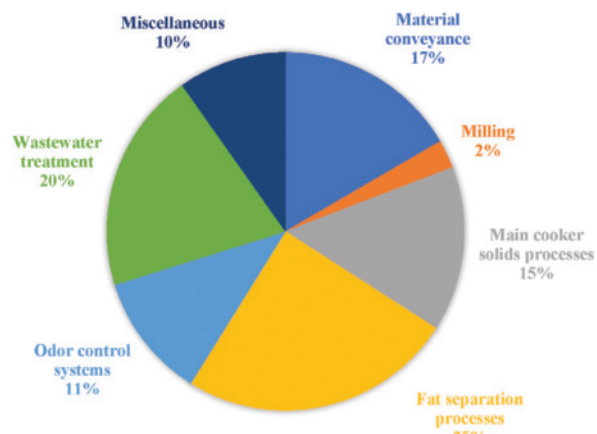


Figure 7.13 Electricity allocation for unit processes at Plant B.

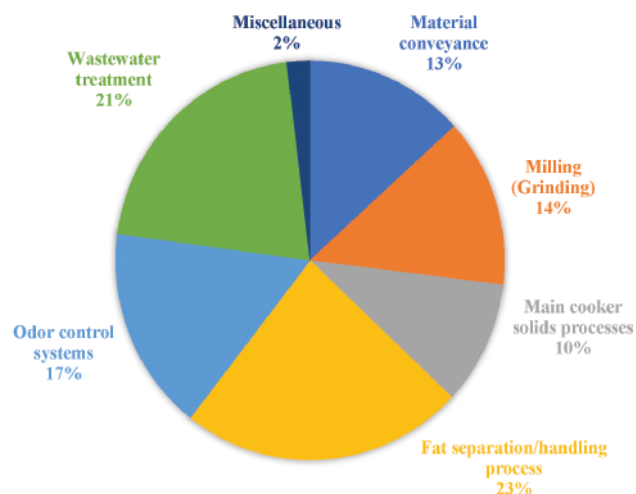


Figure 8.6 Electricity allocation for unit processes at Plant C.

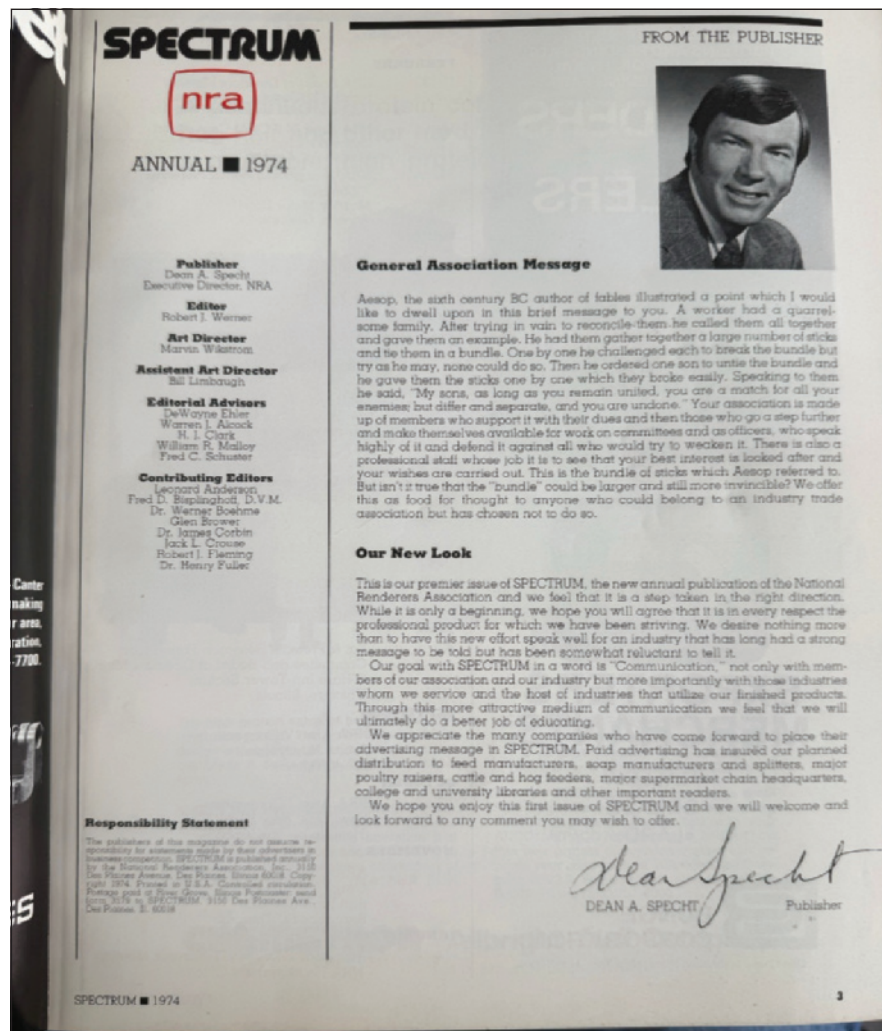
Proud Past, United Future

As most of you know, the North American Renderers Association workforce went remote after COVID, though we've maintained our office in Alexandria, Virginia, until the lease runs out in late 2027. I've been spending time in the office purging old files and organizing our archives ahead of that transition. We've also emptied our remote storage, sorting through what to discard and what's worth preserving.

Going through it all, I'm reminded of just how robust and forward-thinking this industry and its association have been over the years, and we should be proud of this past. At the same time, we're in a period of transition, both as an industry and association. A quote often attributed to Socrates puts it well: "The secret of change is to focus all of your energy not on fighting the old, but on building the new."

As we move forward with our new structure, we'll be shifting to a hybrid setup through shared office spaces like WeWork, allowing us to stay nimble and make more efficient use of our funds. Dana Johnson Downing, NARA's vice president of international programs, often says our small NARA staff "punches above its weight class," and we intend to keep doing exactly that as we adopt new technologies and the efficiencies they bring.

I'm also somewhat of a history buff, so I've genuinely enjoyed reading through



these old documents as I archive them. It turns out old things have a way of becoming new again. For example, I came across the first report of the (then) National Renderers Association Task Force on Grease Theft from 1981 — a problem we're still contending with today.

I also found a well-written article in the very first issue of *Spectrum* magazine, the publication that preceded *Render*.

The piece was written by Dean Specht, NRA president and executive director from 1963 to 1988, and it focused on the strength of a united association. Reading it got me thinking about writing something similar myself. Instead, I decided the better tribute was simply to republish his original article from the 1974 *Spectrum Annual* below:

Aesop, the sixth-century B.C. author of fables, illustrated a point I would like to dwell upon in this brief message to you. A worker had a quarrelsome family. After trying in vain to reconcile them, he called them all together and gave an example. He had them gather together a large number of sticks and tie them in a bundle. One by one, he challenged each to break the bundle, but try as he may, no one could do so.

Then he ordered one son to untie the bundle, and he gave them the sticks one by one, which they broke easily. He said, "My sons, as long as you remain united, you are a match for all your enemies; but differ and separate, and you are undone."

Your association is made up of members who support it with their dues and also those who go a step further and make themselves available for work on committees and as officers, who speak highly of it and defend it against all who would try to weaken it. There is also a professional staff whose job it is to see that your best interests are looked after and your wishes are carried out.

This is the bundle of sticks to which Aesop referred. But isn't it true that the "bundle" could be larger and still more invincible? We offer this as food for thought to anyone who could belong to an industry trade association but has chosen not to do so. **R**

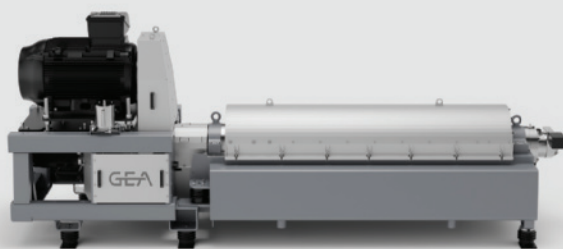
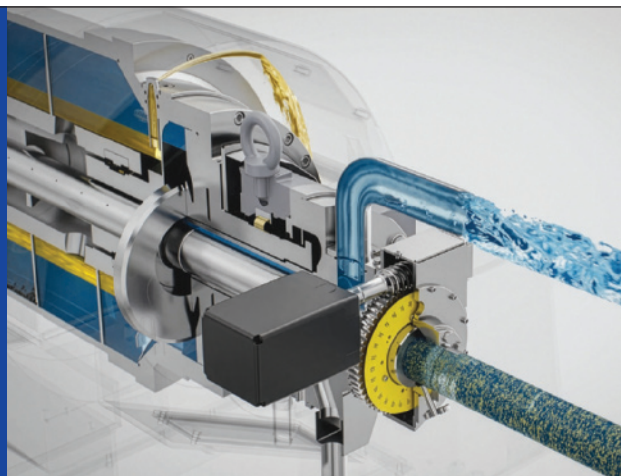
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Sharla Ishmael, Editor/Publisher, October 1, 2026

PS Form 3526-R, July 2014

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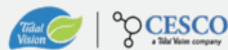
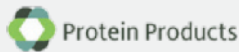


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7:30 AM	Registration Opens
8:00 AM-12:00 PM	International Market Development Committee Meeting (Closed Meeting)
12:00-1:00 PM	APPI & Feed Regulation Committee Meeting
1:00-2:00 PM	Canadian Renderers Association Meeting
2:00-5:00 PM	Opening General Session: The State of Rendering: Food, Feed & Fuel
6:00-6:30 PM	First Timers Reception (Invitation Only)
6:30-7:30 PM	Welcome Reception
6:45 PM	Live Auction for Canine Companions

WEDNESDAY, OCTOBER 21

7:00-8:30 AM	Breakfast
8:00-9:00 AM	Communications Committee Meeting
9:00-10:00 AM	FPRF Membership & Board of Directors Meeting
9:30-11:30 AM	Spouse/Guest Programs
10:00-11:00 AM	Sustainability & Environmental Committee Meeting
11:00 AM-12:00 PM	Legislative Action & Biofuels Committee Meeting
12:00-1:45 PM	Welcome Luncheon
2:00-4:30 PM	FPRF Innovate Symposium
4:30-5:00 PM	Industry Advisory Committee Meeting
5:00-6:00 PM	World Renderers Organization Meeting
6:30-7:30 PM	Chairman's Reception

THURSDAY, OCTOBER 22

7:00-8:30 AM	Breakfast
8:00-8:30 AM	NARA Eastern Region Meeting
9:00-11:30 AM	Industry Issues Forum
9:30-11:30 AM	Spouse/Guest Programs
11:30 AM-12:30 PM	Box Lunch Pick-Up
11:30 AM-5:30 PM	CCI Chemical Golf Tournament
11:30 AM-5:30 PM	Optional Tours
7:00-9:30 PM	Tabletop Reception & Exhibit

FRIDAY, OCTOBER 23

7:00-8:30 AM	Breakfast
7:30-8:15 AM	Convention Planning Committee Meeting
8:15-8:45 AM	Audit and Budget Committee Meeting
9:00-11:30 AM	International Market Forum
11:30 AM-12:45 PM	NARA Board of Directors Meeting
6:00-10:00 PM	Friday Night Event

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Air Regulation FAQs, Part 1

How low can you go? What, when, how and other considerations for air permits.

By Susan A. Brancaccio, Williams Mullen

When a source seeks an air permit, one of its biggest questions is often, “How exacting must my emissions controls be?” The Clean Air Act answers that question through several technology-based standards, each with different applications, triggers and levels of stringency. This article aims to help untangle the “alphabet soup” of these control technology standards in a way that is easy to digest: what they are, when they apply, how they are enforced and what key considerations a source should be thinking about when determining how low its emissions must drop under:

- Best available control technology (BACT).
- Reasonably available control technology (RACT).
- Maximum achievable control technology (MACT).
- Lowest achievable emissions rate (LAER).

Part 1 of this series examining the Clean Air Act’s technology-based control standards focuses on BACT and LAER — two standards that play a central role in the Clean Air Act’s air permitting framework for new or major modified sources. Part 2 (in *Render’s* next issue) will examine RACT and MACT, which apply in other regulatory contexts.

Q: When do BACT and LAER apply?

As a refresher, under the Clean Air Act, new source review (NSR) permitting is a preconstruction permitting program. NSR permitting establishes requirements for new or existing sources undergoing major modifications (major modified sources).

There are two types of permits under NSR: prevention of significant deterioration (PSD) permits and nonattainment new source review (NNSR) permits. PSD permits are for those sources located in areas attaining the National Ambient Air Quality Standards. Thus, a PSD permit is designed to “prevent significant deterioration” of existing air quality. Alternatively, sources located in a nonattainment area, or not achieving the NAAQS, would be subject to a NNSR permit.

BACT applies to sources undergoing PSD permitting. LAER, on the other hand, applies in the NNSR permitting context. Importantly, LAER applies only to pollutants for which the area is in nonattainment and for which a source is major. In turn, under NNSR, a source does not trigger review for a significant

increase (a major modification) if the source is not major for that particular pollutant to begin with.

Q: What pollutants do BACT and LAER apply to?

When considering what pollutant emissions must be reduced through control technology, BACT and LAER apply to NSR-regulated pollutants. NSR-regulated pollutants include but are not limited to: any pollutant for which a NAAQS has been promulgated; any pollutant that is a constituent or precursor for a pollutant for which a NAAQS has been promulgated; any pollutant that is subject to any standard promulgated under Section 111 of the Clean Air Act (New Source Performance Standards); and any Class I or II substance subject to a standard promulgated under Title VI of the Clean Air Act (ozone-depleting substances).

Q: What is BACT?

BACT is the maximum degree of reduction of pollutant emissions achievable for a particular source through the application of available control technologies, while taking into account energy, environmental and economic impacts, and other costs. Simply put, the BACT determination for a source will balance pollution reduction — the goal of the analysis — with economic and technological feasibility. Critically, BACT is a case-by-case determination and not a one-size-fits-all approach to emission reductions.

Q: To what NSR-regulated pollutants must a new source apply BACT?

A new source must apply BACT to each regulated NSR pollutant it would potentially emit in “significant” amounts. Notably, significant amounts set forth in 40 CFR 52.21(b)(23) do not mean “major amounts.” What does this look like in practice?

Imagine a new source is constructed that emits 300 tons per year (tpy) of volatile organic compounds (VOCs), 45 tpy of sulfur dioxide and 95 tpy of carbon monoxide. Despite the fact that the source is considered “major” only due to VOCs, it would need to apply BACT to each pollutant for which it is “significant.”

Under these circumstances, it would need to apply BACT to its VOCs and sulfur dioxide emissions because 40 tpy is the significant threshold for sulfur dioxide. Conversely, the source



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would not need to apply BACT to its carbon monoxide emissions because 95 tpy is less than the significant amount of 100 tpy.

Q: To what NSR-regulated pollutants must a major modified source apply BACT?

An existing source must apply BACT to each regulated NSR pollutant for which it would result in a significant net emissions increase at the source.

A major modification means any physical change in or change in the method of operation of a major stationary source that would result in a significant emissions increase of any regulated NSR pollutant and a significant net emissions increase of that pollutant from the major stationary source [40 CFR 52.21(b)(2)(i)]. Thus, the increases that would be considered “major modifications” are coextensive with the pollutants for which a BACT analysis would need to be performed.

Continued on page 34



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What does this look like in practice? Imagine an existing facility is major because it emits 300 tpy of VOCs. It plans an expansion project that would increase its VOC emissions by 10 tpy; its nitrogen oxide emissions from 10 tpy to 60 tpy; and its particulate matter emissions from 0 tpy to 30 tpy. This would be considered a major modification because its increases of both nitrogen oxides and particulate matter qualify as a major modification.

Likewise, the source would have to do a BACT analysis for those pollutants. The source would not have to do a BACT analysis for VOCs even though VOCs are the reason the source was originally considered major, as the 10 tpy increase is not considered significant for VOCs.

Q. How is BACT determined?

BACT is determined through a top-down approach. At Step 1, the source lists all available control technologies. This list is designed to be comprehensive and should include all options applicable to the particular pollutant (even if the option will be eliminated in later steps). At Step 2, the source removes any technically infeasible options and must document, with specificity, why that control option cannot be used. At Step 3, the source ranks the remaining control options against each other in order of overall effectiveness.

Then, based on this ranking, at Step 4 the source evaluates each control option for energy, environmental and economic impacts. If the top candidate (from Step 3) is unfavorable for any of these reasons, the source assesses the impacts of the next available control option. The most effective control option (the highest ranked at Step 3) that is not eliminated at Step 4 is then chosen as BACT at Step 5. Accordingly, a source must include in its permit application its proposed BACT and a presentation of alternative control technologies that could achieve a higher degree of emission control and why it was not selected due to unreasonable adverse energy, environmental or economic impacts.

Q. What are environmental, energy, or economic impacts?

- **Energy:** Considers items such as energy consumption, scarcity of fuels and energy production impacts (utility impacts).
- **Environmental:** Considers items such as effects on air quality, irreversible or irretrievable commitment of resources, solid waste disposal and water impacts.
- **Economic:** Considers items such as direct costs, capital availability and local economic impacts.

Note that the U.S. Environmental Protection Agency does not intend a BACT decision should force new projects to the brink of cancellation but believes the decision should be made balancing these three (potentially competing) factors.

Q. Why does the Clean Air Act require BACT?

As a general matter, the PSD program was designed to ensure air quality is not degraded in attainment areas that are already relatively clean. Thus, requiring new sources or major modified sources to reduce their emissions helps ensure cumulative impacts to air quality do not arise. While a single new source may have only a small impact on air quality, regulators must be concerned with potential impacts in the aggregate from all new or major modified sources.

To that end, the purpose of BACT in PSD permits is two-fold. First, although emission limits exist in other parts of the Clean Air Act (such as NSPS), some sources are capable of achieving even greater emission reductions than those industry-wide standards require. Moreover, the process for updating those standards can take decades. BACT therefore allows regulators to obtain additional air quality benefits from sources that can achieve greater emission reductions and helps ensure sources are not engaged in a “race to the bottom” when increased emission reductions are both technically feasible and economical.

4 billion pounds

That's how much used cooking oil (UCO) renderers recycle every year from food items like french fries into renewable fuels, safe and nutritious animal feeds and much more. #sustainability



Visit the North American
Renderers Association
at nara.org
for more information
about the benefits
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Q. Can BACT ever apply to an existing source?

Yes. EPA has historically been concerned about the issue of a source improperly seeking and receiving a synthetic minor permit, constructing its facility subject to less demanding permitting requirements and, shortly thereafter, relaxing its permit limits and actually operating at major source levels of pollution. EPA refers to such synthetic minor source permits as sham permits. The Clean Air Act prescribes the methodology for determining BACT at a synthetic minor source that becomes major after relaxing its permit limits (determining BACT as if construction never previously commenced).

Why does this matter? As discussed above, when developing BACT, a source considers economics and need. And as a general rule, it is more expensive to retrofit existing equipment with pollution control measures than to install new equipment with better pollution control measures at the outset. In other words, older plants are often treated more leniently than those not yet constructed when costs are considered. Consequently, if EPA uses its authority in 52.21(r)(4), that potentially lenient treatment (less economically burdensome control technology) is no longer available.

Q. What is LAER?

LAER, like BACT, is also considered on a case-by-case basis, but it generally looks outward to what others are achieving or are required to achieve rather than inward to the source's own circumstances and constraints. LAER is either the most stringent emission limit contained in the state implementation plan (SIP) of any state for such class or category of source (unless a source can demonstrate such limitations are not achievable) or the most stringent emissions limit achieved in practice by such class or category of source.

In other words, LAER is considered the most stringent emissions limit contained in an SIP for a source (adopted as a rule, regulation or even an individual permit incorporated into an SIP) —

unless a more stringent emissions limit has been achieved in practice or the SIP limitation is demonstrated by the owner or operator of the proposed source to be unachievable.

Q. What is considered 'achieved in practice'?

An emission limit or control technology is considered "achieved in practice" when it has been demonstrated by real-world sources. Of note, regulatory agencies may consider whether the control technology is performing as expected when determining whether it has actually been achieved in practice.

Q. Does LAER consider cost of implementation for a source like BACT?

Generally, no. EPA guidance does not allow consideration of costs in LAER determinations. Nevertheless, the agency has suggested that if the cost of the control is so great that a new source could not be built or operated, it may be considered "not achievable." However,

EPA further advises that if a source in the same or comparable industry uses that control technology, then this constitutes de facto evidence the cost to the industry is not prohibitive. Moreover, EPA guidance highlights that costs in a LAER analysis should only be considered if they involve unusual circumstances that in some way impact an individual source in a different or unique way, as compared to the rest of that industry.

Q. How does LAER positively impact nonattainment areas?

LAER is anchored to all states' SIP requirements or emission levels already achieved by other sources or comparable industries, which ultimately prevents states or industries from lowering standards to gain a competitive advantage and ensures the most stringent controls set the floor rather than the exception.

If you or your facility have questions regarding the applicability of any of these control technology standards or how they may impact your operations, the environmental team at Williams Mullen would be happy to assist. **R**

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The Ag Processing Inc. (AGP) soy crush and biodiesel facility in Sergeant Bluff, Iowa. Photo credit goes to AGP.

The Power of Many — and Reallocation

In late August, groups representing the biodiesel and feedstock industries rallied together for an impressive media blitz responding to reports that the Trump administration was planning to issue far more small refinery exemptions (SREs) for the 2025 compliance year under the Renewable Fuel Standard than the U.S. Environmental Protection Agency previously projected.

For anyone who has been involved in this industry for more than a few years, this SRE threat may have invoked feelings triggered by past trauma from Aug. 9, 2019, when the first Trump administration granted 31 waivers at once. A week later, one of the largest independent biodiesel producers in North America closed three of its manufacturing facilities. It was a scary time for the industry. Seven years later, just as a massive recovery in the space was underway, it felt like *déjà vu* all over again.

EPA was on a timeline this summer to finalize decisions on the pending 2025 SRE petitions before the end of August. Rumors indicated the agency was going to grant additional

SRE petitions totaling more than 1.8 billion renewable identification number (RIN) credits — nearly double what EPA assumed when it released historic renewable volume obligations (RVOs) for 2026-2027 in late March — under a revised methodology.

In the 2026-2027 RFS rule announced in March, EPA projected that it would grant SREs totaling 990 million RINs for 2025. The agency established supplemental volumes for 2026 and 2027 to ensure that the exemptions would not undercut current biobased diesel production and pause investments in additional production capacity.

An almost doubling of waived RINs — with each RIN equivalent to a gallon of ethanol, and a gallon of biodiesel generating 1.5 D4 RINs — would have a devastating effect on the recovering U.S. biodiesel industry. The sector was in a serious downturn in 2025 and the first quarter of 2026 from federal policy uncertainty and years of low RVOs under the Biden administration until late March when the Trump administration issued the historic biobased diesel volumes for 2026-2027.

The market immediately responded. Workers returned to idled and underproducing plants and began ramping up manufacturing to new highs over the summer months.

The American Soybean Association led the charge in late August, warning that the approval of this reported plan by EPA could eliminate half a billion gallons of biodiesel demand.

"At a time when soybean farmers are already struggling to support our farms, we cannot afford for the rug to be pulled out from under one of our most important sources of domestic demand," said ASA Vice President Dave Walton. This lit the fire and soon after, trade group after trade group was sounding the alarm bells.

"Biodiesel would take the brunt of the negative impact of this expansion of SREs," stated the Sustainable Advanced Biofuel Refiners Coalition. "This potential new change would further expand SREs to oil companies that are logging record profits from swollen refinery margins and certainly not experiencing 'economic hardship.' Expanding SREs would come at the expense of farmers who have suffered tremendously from shifting trade and biofuel policies. Farm bankruptcies increased 46% in 2025. Now, in 2026, the conflict in Iran has exacerbated that economic harm to farmers because of high diesel fuel prices and a shortage of fertilizer and other inputs due to supply disruptions."

Other groups, including the Iowa Biodiesel Board, Missouri Soybean Association and Iowa Renewable Fuels Association, followed suit. Then, on Aug. 27, the Fuels America Coalition, of which Clean Fuels Alliance America is a part, sent a letter to President Donald Trump, warning of the devastating

consequences arising from implementation of such a plan.

"The consequences would be severe and immediate," the letter states. "Biofuel markets would collapse as excess SREs reduce blending requirements. This would remove demand for corn, soybean oil, canola and other feedstocks, translating directly to lower farm prices and weaker rural economies. Consumers would lose lower-cost fuel options as excess SREs would tighten the fuel market and undermine the administration's stated goal of lowering energy costs.

"Investment in renewable fuel infrastructure would stall, signaling to every future investor that U.S. biofuel commitments cannot be trusted," the letter continues. "Reallocation of waived gallons above the levels published in the Set 2 RVO at some uncertain time in the future beyond 2027 won't mitigate what will be irreparable harm today."

The group wisely urged President Trump to ensure EPA reallocated any waived gallons from the granting of additional 2025 SREs to 2026 and 2027 RVOs. On Aug. 31, the agency promised to do just that.

EPA announced decisions on 34 SRE petitions for the 2025 compliance year, exempting 29 refineries from retiring a total of 1.76 billion RINs. Eighteen of those 29 refineries received 100% exemptions while 11 got 50% exemptions. The agency also finalized a rule to further delay the 2025 RFS compliance date by 30 days to Oct. 1.

Most importantly to biofuel stakeholders, EPA also announced its intention to finalize a supplemental rule before

Continued on page 40



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the end of October to ensure the additional RINs exempted Aug. 31 — the 770 million above the previously estimated 990 million — are 100% restored to 2026 and 2027 RFS volumes. Reaction to this news was mixed.

“Clean Fuels fundamentally disagrees that small refiners need reprieve from the tepid 2025 RFS volumes set by the prior administration,” said Kurt Kovarik, vice president of federal affairs for Clean Fuels. “We appreciate the White House’s commitment to hold biofuel producers harmless and will work with EPA to quickly finalize the promised supplemental rule.

“We will continue to press the administration to reallocate future SREs to ensure they do not harm farmers and other stakeholders in clean fuel production.” He added, “We’re hopeful that today’s action won’t reverse the progress we’ve made and that our industry can maintain faith in the RFS program.”

MSA President Cody Brock said Missouri soybean farmers appreciate President Trump for recognizing what is at stake for growers and the domestic biofuel market. “We appreciate the administration’s proposal to fully reallocate these additional exemptions, but timing is important. EPA must move quickly to follow through on that commitment, fully reallocate these RINs and ensure soybean farmers are not left carrying the cost of these exemptions.”

Monte Shaw, executive director of IRFA, said, “Every day that passes while these new refinery exemptions are final but the reallocation is hypothetical leaves renewable fuels producers and farmers in the lurch. The EPA must act expeditiously to propose and finalize a rule that reallocates 100% of the new refinery exemptions. Nearly a billion gallons of renewable fuels demand hangs in the balance.”

The biodiesel value chain, which includes farmers, feedstock processors, renderers, biodiesel producers, glycerin refiners, fuel distributors and retailers, supports millions of American jobs

and generates billions of dollars in domestic economic activity while supplying much-needed sustainable fuel to America’s diesel supply, helping to lower prices.

“Without the administration’s decision to address the additional exempted volumes as a result of the expanded SREs for compliance year 2025, those businesses and the investments they have made to meet national fuel needs would have been placed at risk,” SABR stated.

“We are grateful to the administration and the president for their decision today to reinforce their commitment to the RFS made earlier this year and to keep the recovery of the biodiesel and soybean industries going,” said SABR CEO Joe Jobe.

As U.S. biodiesel and renewable diesel manufacturers continue expanding production, all eyes in the biofuels world will be on EPA’s proposal this October to reallocate 100% of the difference between projected and actual exempted volumes for 2025 SREs into the 2026 and 2027 RVOs. Meanwhile, the year 2028 and another round of RVOs will be here faster than we know it. Biofuel trade groups are sure to make the case with EPA to push aggressive volume increases forward while containing SREs to a minimum.

Lastly, you might be wondering about those reports and rumors — the ones sparking the late August media campaign that appears to have changed the outcome of EPA’s decision. Here is what the agency had to say about them.

“Since the beginning of the Trump administration, EPA has observed inaccurate and misleading reporting on the agency’s RFS actions that have contributed to significant market movements despite no official statement or action from the administration. Most recently, misleading reports and information led to significant volatility in the RIN market. These incidents raise serious concerns about the potential misuse of material nonpublic information and possible market manipulation. EPA continues to work with the Commodity Futures Trading Commission and will expand its coordination to ensure compliance with all applicable federal laws and protect the integrity of the RIN market.” **R**



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Ava Goodpasture

NARA Announces Inaugural Owen Vickers Memorial Scholarship Recipient

The North American Renderers Association announced Ava Goodpasture as the inaugural recipient of the Owen Vickers Memorial Scholarship. The scholarship honors longtime rendering industry leader T. Owen Vickers Sr., a third-generation leader of Birmingham Hide & Tallow Co. (BHT ReSources).

It supports students pursuing higher education while honoring Vickers' long-standing commitment to both the rendering industry and investing in future generations. The recipient receives \$2,500 per year for two years, for a total scholarship award of \$5,000.

"Owen believed the rendering industry's future depends on the people who come after us," said Michael Glenn, CEO and president of BHT ReSources. "Establishing this scholarship in his name is a fitting tribute to a man who spent his life building a family business, strengthening our industry and quietly investing in the next generation."

"We are proud that Ava Goodpasture is the inaugural recipient," he added. "Her family's multigenerational connection to rendering makes this award especially meaningful. On behalf of everyone at BHT ReSources, we congratulate Ava and wish her every success as she continues her studies."

Goodpasture is currently a student at the University of Hawaii at Mānoa, where she is pursuing a degree in business management and human resources. She anticipates graduating in 2029.

"Receiving this scholarship means so much because rendering has been a part of my family for three generations," Goodpasture said. "My parents personally knew Owen Vickers, which makes being the inaugural recipient even more special, and I'm grateful to carry that connection forward as I continue my education and work toward my future."

2026 Rendering Scholarships Awarded to Howard, Brown

Two university students, Carmen Howard and Audreanna Brown, were selected as the 2026 recipients of NARA's Rendering Scholarships. Now in its second year, the NARA Rendering Scholarship was established to recognize and support students who demonstrate an interest in the vital role rendering plays in the circular economy. Each recipient receives a \$2,500 scholarship. The program also helps introduce the next generation to an essential but often underrecognized part of the agricultural supply chain and encourages students to explore careers connected to the rendering industry.

Rendering plays an important role in reducing food waste by reclaiming animal by-products and transforming them into valuable ingredients and products rather than sending those materials to landfills. Rendered materials are used in products including animal feed and pet food, biofuels, fertilizers and other everyday goods, making rendering an important contributor to a more sustainable and circular economy.

"Supporting the next generation is an



Carmen Howard



investment in the long-term strength of the rendering industry,” said Kent Swisher, NARA president and CEO. “Through the NARA Rendering Scholarship, we have an opportunity to support talented students as they pursue their education while also introducing them to the important role our industry plays in agriculture and sustainability. This year’s winners both represent the kind of passion and potential we want to encourage, and we are proud to support them as they work toward their education and career goals.”

Howard is currently a senior at Unity Environmental University, where she is pursuing a bachelor’s degree in animal science with an emphasis in sustainable livestock management. She anticipates graduating in 2027.

“It is an incredible honor to be selected as a recipient of the North American Renderers Association Scholarship,” Howard said. “Receiving this scholarship is meaningful because it recognizes the perseverance, dedication and passion for agriculture that have shaped my journey. I am sincerely grateful for NARA’s investment in my education and look forward to using

this opportunity to advance sustainable livestock production while strengthening the connection between agriculture and the communities we serve.”

Brown will begin her studies at Tuskegee University this fall, where she plans to major in animal and veterinary sciences. She anticipates graduating in 2030 and plans to pursue a future career in veterinary medicine.

“Receiving this scholarship means so much to me because it will help support me as I pursue my education and work

toward my future career in veterinary medicine,” Brown said. “I am very grateful for NARA’s support and for the opportunity to continue working toward my educational and career goals.”

Through the Rendering Scholarship program, NARA continues its commitment to education, outreach and workforce development while encouraging students to learn more about rendering and its contributions to sustainable agriculture, resource efficiency and the circular economy. **R**

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A Busy, Productive Summer

Between May and August, World Renderers Organization representatives attended many meetings as several previously prepared initiatives moved into implementation. During these months, WRO maintained direct engagement with international authorities, strengthened coordination among its members and advanced technical projects designed to support the global rendering sector.

93rd WOA General Session

Building on the technical progress reported in the August issue of *Render*, WRO participated in the 93rd General Session of the World Organization for Animal Health held May 18-22 in Paris, France, represented by me and Joaquín Delgadillo from Mexico. During this meeting, WRO's delegation continued to follow developments related to the Terrestrial Animal Health Code, with particular attention to provisions affecting the recognition and international trade of rendered fats and protein meals. The organization's direct participation remains essential to monitor these discussions and ensure the global rendering industry's technical perspective is represented as international animal health standards evolve.

EFPPA Congress, WRO General Assembly

In May, WRO participated in the European Fat Processors and Renderers Association Congress in Tenerife, Spain, which also hosted the 2026 WRO General Assembly. The general assembly provided an opportunity to update members on our technical, regulatory and institutional activities, review ongoing international priorities and align the organization's next steps.

Members also discussed measures to strengthen WRO's long-term strategy and communications, including a review of its digital presence, the development of member testimonials, updated materials explaining WRO's value and a proposal for a dedicated strategic and management meeting.

WRO Call to Action on WOA Glossary Definitions

Following previous discussions with WOA, WRO issued a call to action to its members. The initiative sought coordinated support to begin formal work on clear, scientifically sound definitions of rendering and rendered fats and protein meals within the TAHC glossary.

Harmonized definitions are fundamental to reducing ambiguity, supporting consistent sanitary certification and providing a more stable basis for the science-based international trade of rendered products. WRO will continue to coordinate its members' engagement in this process.

Feedlatina Workshop and IFRM

Next, I had the opportunity to represent WRO at the Feedlatina Workshop held July 28-29, and the 19th International Feed Regulators Meeting, July 30-31, both held in Foz do Iguaçu, Brazil. The Food and Agriculture Organization of the United Nations and the International Feed Industry Federation organized the International Feed Regulators Meeting. The meetings brought together feed regulators, industry representatives and international organizations, providing WRO a valuable opportunity for direct dialogue with authorities from different regions.

During the IFRM, I was invited to chair a roundtable discussion on sustainability and the future of the feed sector. The discussion focused on stronger cooperation between regulators and industry, risk-based regulatory approaches, greater international harmonization and improved access to innovation.

GPPU, Use of Rendering Products in Animal Feed

WRO and FAO also began developing good practices of production and use under the co-publishing agreement signed in 2025. The document is currently being developed in three

main parts. The first addresses the history and technological development of rendering and its contribution to sustainability, circular bioeconomy and One Health — an integrated, scientific approach to attain optimal health for people, animals and the environment. The second presents the code of practice for the rendering industry, and the third provides a practical hazard analysis and critical control points plan example.

A fourth part, not yet developed, will focus on the use of rendered products in animal nutrition. All chapters will be reviewed by the WRO's expert working group. This work moves the WRO's agreement with FAO into its technical implementation phase and represents an important step toward establishing an internationally applicable, science- and risk-based reference for the rendering sector.

Looking Ahead

WRO's international agenda will remain active through the balance of 2026 and the first half of 2027, with continued participation in meetings related to One Health, sustainability, animal feed, international standards and cooperation within the rendering sector.

The first of these engagements will take place at press time — the Australian Renderers Association International Symposium in Melbourne, Australia, Sept. 15-17. WRO will participate in a panel addressing developments in the global rendering industry alongside representatives from Australia, New Zealand, Europe, Canada and the U.S. This will provide an opportunity to present WRO's international strategies and recent progress while strengthening cooperation among regional rendering organizations.

WRO will participate in the FAO Global Conference for Actions on One Health in Agrifood Systems Sept. 21-23 in Rome, Italy.

This will be followed by the 44th FAO Livestock Environmental Assessment and Performance partnership's steering committee meeting Sept. 23. These meetings will provide opportunities to reinforce the contribution of rendering to biosecurity, animal health, environmental protection, circular bioeconomy and the sustainable transformation of livestock systems.

WRO will participate in the North American Renderers Association Annual Convention in Tucson, Arizona, Oct. 20-23, strengthening cooperation with the North American rendering industry and following key technical, regulatory and market developments affecting the sector. November's WRO plans include the IFIF-FAO Annual Meeting in Rome, Italy, Nov. 11-13 (subject to confirmation).

2027 Meetings to Mark on the Calendar

The 2027 agenda will begin with the VI Congreso Nacional organized by the Cámara de Subproductos de Ganadería, March 10-12 in Campana, Argentina. This will be followed by the 2027 WOA General Session May 24-28 in Paris, France.

The EFPRA Congress and WRO General Assembly will be held in Liverpool, England, June 8-11. In addition to electing a new WRO board, the meeting will include broader discussions on the organization's strategy, priorities and future direction. Members will also be invited to support initiatives to renovate our website and produce short advocacy videos highlighting the organization's value.

Together, these activities will maintain WRO's presence in the principal international forums affecting the rendering sector while strengthening its strategy, communication and cooperation with members worldwide.

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Membership is Personal

NARA may represent companies, but behind every member company are people.

As director of operations and member relations, I spend a lot of my day communicating with members of the North American Renderers Association, answering questions, helping with membership, working through event registrations or simply connecting someone with the right resource. I see many of your names regularly in my inbox, but some I haven't yet had the opportunity to meet face to face. That's one of the reasons I'm especially looking forward to our annual convention in Tucson later this month.

This will be my second NARA convention, and while I had the opportunity to get to know many of you last year in Amelia Island, we also have several new members and new faces joining us this year. I quickly realized during my first convention why

members value this event so much and why so many return year after year.

The industry discussions, educational sessions and speakers are certainly an important part of convention, but some of the most valuable moments happen outside the meeting room. It might be a conversation over coffee, sitting next to someone new at lunch, finally meeting a supplier or customer you've emailed for years, or being introduced to someone facing the same business challenges. Those conversations build relationships and those relationships are a big part of what makes membership valuable.

Something I've come to appreciate even more during my time at NARA is that membership is personal. NARA may represent companies, but behind every member company

are people. People who have built careers in this industry, people who are just getting started, people with decades of experience to share and people working every day to move the rendering industry forward. Convention gives us an opportunity to bring all those people together.

We've also been working to tell more of those stories throughout the year through our Membership Monday social media series. Each feature gives us an opportunity to highlight a NARA member, introduce their company to the broader industry and share in their own words why NARA membership matters to them.

One of my favorite parts of Membership Monday has been seeing the variety of responses we receive. Different companies find value in diverse aspects of NARA. For some, it's advocacy and having a collective voice on issues affecting their business. For others, it's industry information, education, international market development or the relationships they've built with fellow members. There isn't one answer to what makes membership valuable, and I think that speaks to the strength and diversity of our association.

We're always looking for our next Membership Monday feature. If your company hasn't been spotlighted yet, we'd love to tell your story. Tell us who you are, what you do, why you value NARA membership and what makes your company

unique. It's an opportunity for us to recognize the companies and people that make our association stronger.

At the end of the day, membership is about people. It's about who you meet, what you learn from one another, the relationships you build and the collective voice we create as an industry. Whether we're sharing your story through Membership Monday or catching up in the hallway between meeting sessions, those connections are what make NARA stronger.

I look forward to seeing many of you at convention and if we've only met through email, please come find me and say "hello". I'd love the opportunity to put a face with a name. **R**



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If you are familiar with the back end of the rendering industry, you are familiar with disc stack centrifuges and their role in cleaning up edible, technical and non-edible tallow, lard, white grease and more recently renewable diesel feedstock. These machines spin at 8,000 to 12,000 times gravity, so it is no surprise that precision equipment needs expert care.

Enter Mr. Ashley Whittington, cofounder and still president and CEO of Separator Technology Solutions globally.

The 'Mister' aspect should be emphasized at this point, as Ashley — who's managed to maintain his native Australian accent — still cannot order a coffee from incredulous baristas in this country under his own name, despite now being a US citizen!

A long, long time ago, as the story goes, Ashley worked at a global leader in separation technology. At that time, based in Melbourne, focusing on the wine industry, Ashley redefined the technology package to suit the specific challenges faced by vintners. The response was immediate and overwhelming — yet a substantive gap would remain for a more specialized, nimble approach to supporting these clarifiers.

Several years later, Separator Technology Solutions (STS) was founded to address this need. Founded in 2005, STS has built a reputation for adding value, based on deeper process knowledge, a higher performing product, fair pricing for machines and even more importantly, maintenance spare parts, and quick customer response times.

“Our message to the rendering industry is simply this: We are here to support you.

— ASHLEY WHITTINGTON
PRESIDENT & CEO, STS

For the USA rendering market today, stocking inventory in San Leandro, California, and with a regional repair workshop based near Des Moines, Iowa, STS can get parts and support to customers fast, at competitive pricing.

Specific to the North American rendering industry, for the last 6 years, STS initially collaborated exclusively with the highly respected Dupps Company. Today, to serve the market going forward, and by mutual agreement, STS is now going direct.



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Whittington says, “We collaborated to build a strong foundation in the North American rendering industry with Dupps’ capable technical and commercial guidance. Together we tailored the DUPPS STS Series vertical high-speed disc centrifuge range to suit the specific demands — and known points of failure — for the nuances of these varying duties.”

“A vertical disc stack centrifuge is akin to a racing car whilst the horizontal decanter centrifuges are more of four-wheel drive,” states Whittington. “Feedback from the industry was that it needed a focused specialist to diagnose the process and service challenges inherent to disc stacks specifically, and going direct is a response to that need.”

More than simply a parts house, STS comes with many years of troubleshooting, optimization and process expertise.

“People forget we’re a full-service OEM, complete with in-house programmers and a UL-certified controls shop based in North America,” Whittington continues. “With the structural fat shortage as it is, the disc stacks are playing an increasingly important role in maintaining quality. The heat degradation these machines encounter is very real. We have designed special gaskets, bowl seals and other wear parts to prolong the working life of a rebuild, to keep these machines online, and avoid unnecessary and unforeseen downtime.”

Committed to the rendering segment, STS has hired a new technical sales engineer to focus on the space, Jake Foster Jacobs. He comes from an 11-year tenure working in separation processes with a global leader in filtration.

“Working for a smaller, more nimble company has been great,” says Jacobs. “The level of expertise we can offer is tremendous. The great pricing on genuine, OEM and aftermarket parts is a huge bonus, and the flexibility in being able to respond so much faster has been a game changer. The feedback from customers so far has been terrific, and I look forward to meeting more people and making disc stack machines a less painful experience for everyone.”

Whittington concludes, “Our message to the rendering industry is simply this: We are here to support you. Just as you have to compete to sell your products, so should your vendors have to compete for your business. Please take Jake up on his offer to come visit you. Talk with him about what you need, the challenges you are facing, and give us a chance to help you.”

For more information, contact Jake Foster Jacobs at (520) 753-9663 or jake@sts200.com.



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Getting Ready for Winter Safety Hazards

As temperatures begin to fall, employers often focus winter safety efforts on obvious seasonal hazards such as snow, ice and freezing outdoor conditions. A comprehensive winter safety program, however, can address a broader and, sometimes, counterintuitive range of hazards.

The federal Occupational Safety and Health Administration does not have a comprehensive standard devoted specifically to occupational exposure to cold, but that doesn't mean winter hazards fall outside OSHA's enforcement authority. Depending on the circumstances, OSHA may rely on the Occupational Safety and Health Act's general duty clause or applicable standards governing walking-working surfaces, personal protective equipment (PPE), sanitation and related hazards. Employers should conduct a job hazard analysis to evaluate workplace hazards before winter arrives.

Applicable Laws

Section 5(a)(1), commonly known as the general duty clause, requires an employer to furnish employment and a place of employment "free from recognized hazards that are causing or are likely to cause death or serious physical harm" to employees. OSHA applies the general duty clause and cites employers for dangerous exposures to extreme cold or heat. Further, cold conditions may trigger enforcement under the PPE (e.g., requiring hand protection) and walking-working surfaces (e.g., prohibiting exposure to icy and slippery conditions) standards.

Recognizing Cold Stress Conditions

Employees working outdoors, in refrigerated areas or in unheated facilities may face an increased risk of hypothermia, frostbite and other cold-related injuries. The danger is not limited to subzero temperatures. Wind, moisture, inadequate clothing, fatigue and the length of exposure can materially increase the risk.

Employers should monitor weather and wind-chill conditions, provide appropriate cold weather clothing, make warming areas available, schedule recovery breaks and train employees and supervisors to recognize and respond to symptoms of cold stress. The appropriate controls will depend on the work, environmental conditions, duration of exposure and employees' level of physical exertion. Employers should document the hazards evaluated and the controls selected.

Snow, Ice Create Walking-Working Surface Hazards

Slips and falls remain among the most common winter injuries. Snow, ice, slush and water tracked indoors can affect parking lots, sidewalks, loading docks, ramps, stairs, entrances, trailers and warehouse aisles.

OSHA's general industry walking-working surface standard, 29 C.F.R. Section 1910.22, requires walking-working surfaces to be maintained in a clean and, to the extent feasible, dry condition. Employers must also inspect walking-working surfaces regularly, as necessary, and correct or repair hazardous conditions before employees use the affected surface again. If correction cannot be made immediately, the hazard must be guarded to prevent employee use until it is corrected.

A winter inspection and maintenance program should therefore address:

- Prompt snow and ice removal.
- Application of salt, sand or other appropriate treatment.
- Water and slush tracked into entrances.
- Drainage and refreezing conditions.
- Lighting in parking lots and pedestrian routes.
- Slip-resistant footwear, where indicated by a competent PPE hazard assessment.
- Procedures for reporting and correcting newly developed icy conditions.

Employers should also account for employees who carry packages, tools or equipment across slippery surfaces. A condition that may be manageable for an unencumbered pedestrian may present a substantially greater risk to an employee carrying a heavy or obstructive load.

Wet and icy conditions can also affect the performance of powered industrial trucks (PITs) and other vehicles, which may necessitate changes to powered equipment operations.

Winter Clothing Can Create Indoor Heat Hazards

A less obvious winter hazard arises when employees transition from cold outdoor environments into heated indoor workplaces without removing or adjusting insulated clothing. Heavy coats, waterproof garments, insulated coveralls, high-visibility winter apparel and other protective equipment may retain metabolic heat and restrict the body's ability to dissipate it.

Employees performing lifting, carrying, order picking, material handling, maintenance or other strenuous tasks may become overheated even though it is cold outside. This is particularly relevant in warehouses, distribution centers, manufacturing facilities, transportation terminals and retail back rooms where employees repeatedly move between

indoor and outdoor environments. The same worker may face cold stress on a loading dock and heat stress shortly afterward while performing demanding work inside.

Employers should consider whether employees can safely remove unnecessary layers indoors, the physical demands of indoor tasks, indoor temperature, humidity, airflow and radiant heat. They should also think about whether clothing or PPE impairs evaporative cooling and ensure employees have access to drinking water as well as recovery periods in an appropriate environment. In addition, employers should provide training on early symptoms of heat illness as well as procedures for responding to possible heat emergencies.

In general industry, 29 C.F.R. Section 1910.132(d) requires employers to assess the workplace to determine whether hazards are present — or likely to be present — that necessitate PPE. A PPE hazard assessment should also include the hazards introduced by proposed PPE. OSHA identifies this PPE hazard assessment requirement as relevant to occupational heat hazards.

The practical lesson is that winter PPE should be evaluated not only for whether it protects employees from cold, but also for whether the clothing creates additional strain when worn during strenuous indoor activity.

OSHA's Heat National Emphasis Program Applies Indoors, Outdoors

Employers should not assume that OSHA's heat enforcement efforts are relevant only during summer or outdoor operations. In April, OSHA issued an updated National Emphasis Program for Outdoor and Indoor Heat-Related Hazards, CPL 03-00-024. The program applies OSHA-wide and addresses heat-related hazards in general industry, construction, maritime and agriculture. It establishes targeted enforcement procedures and reiterates OSHA's compliance assistance and outreach efforts.

The revised NEP continues OSHA's focus on identifying and reducing employee exposure to occupational heat-related illnesses and injuries. It also includes an appendix on evaluating employer heat programs and an appendix providing citation guidance. Many states have also created heat illness regulations, some of which apply to indoor work.

For winter operations, this makes task-based hazard assessment especially important. An employer should not rely exclusively on the outdoor temperature or the season. OSHA may examine the actual conditions employees experience, including indoor temperature, workload, clothing, PPE, access to water and recovery areas, acclimatization, training, and emergency response procedures.

Takeaways for Employers

Employers should approach winter preparedness as a coordinated safety and health program. Evaluating environmental conditions, workload, clothing, walking surfaces, training and emergency response together can help reduce injuries and place the employer in a stronger position during an OSHA inspection. If you need additional information about this or any safety topic, please feel free to contact us. **R**

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From left, Michael and Chip Millslagle
with Tamás Tóth, T-1 Ada's CEO.

Built to Last

For 62 years and counting, this family-owned business has built equipment for renderers and other industries. The secret to its longevity as an independent company may lie in durable customer relationships grounded in a deep, hands-on understanding of each client's individual needs.

By Sharla Ishmael

Family businesses, no matter what product they sell, can be awfully tough to keep together as ownership changes hands from one generation to the next. When an independent company figures out a way to survive the changing of the family guard — multiple times — plus a business environment marked by major consolidation, that takes some mettle and vision.

Industrial Hardfacing Inc., based in Lamoni, Iowa, has been run by the Millslagle family since 1964, when Donald Millslagle Sr. bought out his partner at Uptown Welding and renamed the company Industrial Hardfacing. He also expanded the company from its Elk River, Minnesota, base into Iowa and surrounding Midwest states. In the 1970s, IHI expanded into a second location in Lamoni, where it has continued to grow and is now headquartered.

"We're currently moving into the fourth generation of the business," says Chip Millslagle, CEO and president since 2015. "My grandfather obviously started the business, and my father and a couple of uncles continued to maintain the business for the second generation. Today, I'm the sole third-generation owner."

The fourth generation is represented by his son, Michael, who worked part-time during his college years while balancing an impressive athletic career, including a couple of national

track and field championships. He's a six-time All-American and competed in the 2024 Olympic trials. He's worked full-time for the company for a little over two years.

"Right now, I'm the vice president of sales," he explains. "I work with the sales team, leading them and working with production to get things coordinated with sales, and I'm in charge of route trucks, route planning, route scheduling, things like that."

Over the years, IHI has evolved from making screw presses for Atlas Stord and Stord Bartz America, alongside rebuilding and servicing other well-known manufacturers' parts, to making its own equipment. Just recently, the company announced a huge new partnership with T-1 Ada, a Serbian manufacturer, that combines IHI's field experience, customer support and manufacturing with T-1 Ada's European screw press process engineering for renderers and oilseed processors to grow the North American market.

"When those long-term relationships ran their course in the early 2000s, we looked at ourselves a little closer and started moving, not away from rebuilding and service, but into more of an OEM-style role," Chip explains. "We started manufacturing our own screw presses, grinder line and also lamella pumps. Diversification has helped us along the way."

"There's always some luck involved with family organizations,

but we've had a strong foundation in rendering and the oilseed industry for many years," he says. "In the big scheme of things, we're not a big player, but we are an important cog for some very big players in the industry. It's been a grind, but we take a lot of pride in the fact that we are still one of the last independents in the industry today."

Chip says there are benefits of being a smaller company. For example, when he's involved with a decision, it's a done deal — he doesn't have to go back to a board of directors for approval. That gives IHI a flexibility advantage over bigger competitors, and he points out that most customers always have a direct line to him, the CEO.

It's a point of company pride that IHI employees spend so much time in clients' plants that they become de facto institutional memory for that facility — valuable in an industry with a lot of turnover and when a customer needs help.

"For us, it's very important to become intimate, for lack of a better term, with our customers, knowing their operations as well or better than they do," Chip explains. "A lot of attention to detail and knowing specifics about each customer lends us the ability to identify issues or troubleshoot problems because we are in their plants so often that we know them inside and out."

"In today's world, where there's a lot of employee turnover, IHI possessing deep insight into a customer's overall operation can assist them with new employees," he says. "It allows us to understand better what a new person is looking at or asking. It also helps that we can share histories on machines or setups that they may not know."

"Rendering plants are all their own unique animal," he adds. "They might be owned by the same company, they might have the exact same equipment, but there are little nuances to each facility that can go a long way in maintaining a strong relationship and a strong service environment for the customers."

That type of influence with their customer base is just one reason Chip and Michael both see IHI growing — two to three times larger — five or 10 years down the road. They believe the new partnership with T-1 Ada (also a family-owned business) will put their company into a major growth mode. The alliance lets IHI expand manufacturing capabilities without investing major dollars in infrastructure. At the same time, it allows management to focus more on building their sales and marketing model.

Technology is another factor this father-and-son team sees playing out in the company's favor. While Chip admits he's old school and some of the tech coming online, like artificial intelligence (AI), makes him nervous at times, he also believes the overall impact will be positive. For example, he points out that AI can be a valuable tool to train new and younger generations in a rendering plant environment that is completely unfamiliar to them.

He also believes it will help companies like his develop cutting-edge products, pointing to new technologies in the industry today that didn't exist just four or five years ago. One of those innovations is a product IHI is pushing hard to get accepted in the rendering market.

"The rendering industry for years has chased hours, longevity and wear parts and performance along those lines," Chip explains. "On the manufacturing side, most of us always looked at wear parts on the shaft and thought, 'How do I make that shaft run longer?' We never looked at the machine's other components. The other main component that runs up against

the shaft in a screw press is its barrel bars. So, we've taken some of the things that we've learned from the oilseed industry and started to fully adapt those to rendering."

"Hardfaced barrel bars are a little new to rendering, though some Europeans have understood it for years," he adds. "The U.S. market has not been so receptive because of cost, but as that has come down, the pricing has gotten more acceptable. And then looking at the return on investment (ROI) on those parts has made it very acceptable."

"In years past, a standard barrel bar in a rendering press was a case-hardened or heat-treated bar," he continues. "We don't even manufacture those anymore. We've gone to strictly hardfaced bars. Advanced technologies and different geometries on the bar allowed us to achieve better performance — everything from machine start-ups to lower residuals to longer hours."

Another way IHI has changed over the years is its involvement in the North American Renderers Association. Although the company was a NARA member for years, Chip used to prefer spending his own time with customers, establishing relationships at the plants rather than going to meetings and trade shows. Then his sales manager started attending NARA's convention, spring meeting and even the central region meeting. What he told Chip changed his mind, and the results spoke for themselves.

"One of the things he said to me that has stuck was, 'Your absence is noticed more than your presence is felt,'" he explains. "He pushed me to get in front of these people more at the corporate level and attend those meetings — they're booked as mandatory now every year. Going to convention and the other meetings gives us exposure, and it really builds relationships. You can work bottom up, and that's all well and good, but you also have to work top down. NARA involvement helps us build those relationships and work top down."

"I see nothing but good things from it," Chip adds. "I really enjoy the people. I enjoy the customers. I enjoy spending the time on that because it's been big for me. I look forward to the next however many years I've got left, whether it be the next three to five or five to 10 or whatever it's going to be. I'm also looking forward to the evolution of NARA and the rendering industry."

R



Chip and Donald Earl Millsagle Jr., the second and third generations of IHI Hardfacing.

Render

The Official Publication of NARA

Render magazine is owned by the North American Renderers Association and is the information resource communicating services and industry news, including product innovations, government and regulatory issues, new research and market reports.

2027 Advertising Rate Card

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2027 EDITORIAL CALENDAR

Issue	Focus
February	Biofuels and Leadership
April	U.S. Market Report
June	NARA Supplier Directory and Pet Food
August	International Rendering and Aquaculture
October	Feed, Technology and Preconvention
December	NARA Convention Report

Bonus Distribution

Pacific Coast Renderers Assn. Convention
NARA Spring Business Meeting
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NARA Annual Convention/Fats and Protein Research Foundation Conference
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FREQUENCY

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Other industry allies

2027 ADVERTISING DEADLINES

Issue	Ad Files Due
February	January 11
April	March 10
June	May 10
August	July 10
October	September 10
December	November 10

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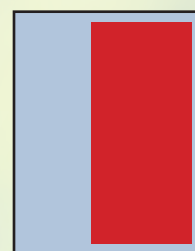
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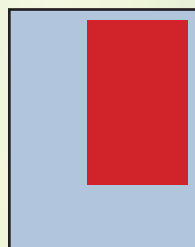
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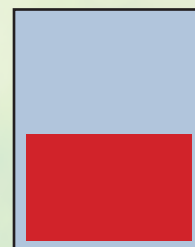
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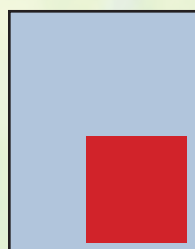
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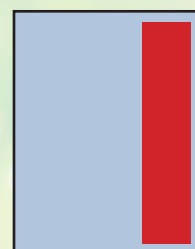
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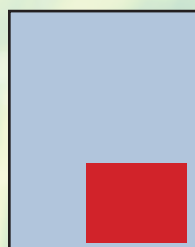
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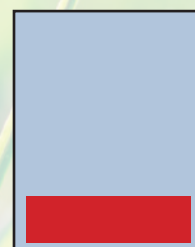
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Mark Your Calendar

October 2026

American Fats and Oils Association Annual Conference

Oct. 7-8, Kansas City, MO • fatsandoils.org

Solutions Summit

Oct. 7-9, New Orleans, LA • meatinstitute.org/events

Poultry Protein and Fat Seminar

Oct. 8-9, Nashville, TN • uspoultry.org/programs/education/seminar

6th International Symposium on Lipid Oxidation and Antioxidants

Oct. 12-14, Wageningen, the Netherlands • eurofedlipid.org/#mark-your-calendar

NARA Annual Convention

Oct. 20-23, Tucson, AZ • nara.org/about-us/events

November 2026

Equipment Manufacturers Conference

Nov. 4-6, Rio Grande, Puerto Rico • afia.org/events

International Feed Industry Federation/Food and Agriculture Organization Annual Meeting 2026

Nov. 12-13, Rome, Italy • iff.org/global-feed/events

January 2027

American Association of Feed Control Officials Midyear Meeting

Jan. 12-14, Lake Buena Vista, FL • aafco.org/events/meetings/mid-year/2027-midyear-meeting

International Production & Processing Expo

Jan. 26-28, Atlanta, GA • ippexpo.org

International Rendering Symposium

Jan. 28, Atlanta, GA, part of IPPE

February 2027

Clean Fuels Conference

Feb. 1-4, Phoenix, AZ • CleanFuelsConference.org

CattleCon

Feb. 2-4, Nashville, TN • convention.ncba.org

Aquaculture America

Feb. 21-24, Honolulu, HI • was.org/Meeting/code/AA2027

Quarterly NARA Committee Meetings

Feb. 18 • virtual

Pacific Coast Renderers Association Annual Meeting

Feb. 26-27, Laguna Nigel, CA • nara.org/about-us/events

Meeting information could change so visit the listed website for updated information.

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Industrial Hardfacing, Inc.....	12/13

IPPE.....	18
Kemin Pet Food & Rendering	2
NARA	30/47
Oestergaard Inc.	3
Onken Inc.	5
Rangen Rendering Solutions	37
RoseDowns	19
STS	49/51
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Uzelac.....	33
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