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Corrosion Proves a Hydronic System Killer

TOHOMAS RENNER SPECIAL TO CONTRACTO

PORTLAND, ME — Contractors prefer closed loop heating and cooling systems for many projects to prevent cross-contamination from external sources. Neglecting maintenance, however, can wreak havoc on the system and result in extensive and costly repair. The owner of a mixed-use building in Portland learned just how vastand expensive—damage can be ➤ Turn to Corrosion, page 60



A view of the new mechanical room showing two of the four new Elite XL

DOL Announces Final Rule to Modernize Davis-Bacon Act

■ SPECIAL TO CONTRACTOR

WASHINGTON, DC - The US Department of Labor today announced the issuance of the final rule "Updating the Davis-Bacon and Related Acts Regulation" to update regulations that implement the Davis-Bacon Act and Davis-Bacon and Related Acts to reflect better the needs of construction workers on federal construction investments.

The announcement follows a Notice of Proposed Rulemaking on March 18, 2022, which received comments from construction

➤ Turn to Davis-Bacon, page 62



Ferguson Acquires Three Distribution Companies

■ SPECIAL TO CONTRACTOR

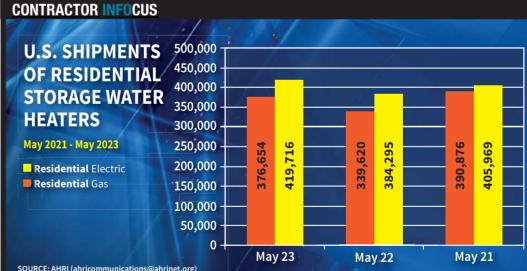
Ferguson (NYSE: FERG; LSE: FERG) announced the acquisition of Bruce Supply Corp (Bruce Supply), a plumbing distributor; The Kennedy Companies (Kennedy), a

waterworks distributor; and S. G. Torrice, an HVAC distributor. All three acquisitions closed in the fourth quarter of fiscal year



ending July 31, 2023, and generate aggregate annualized revenues of approximately \$450 million.

➤ Turn to Ferguson, page 10





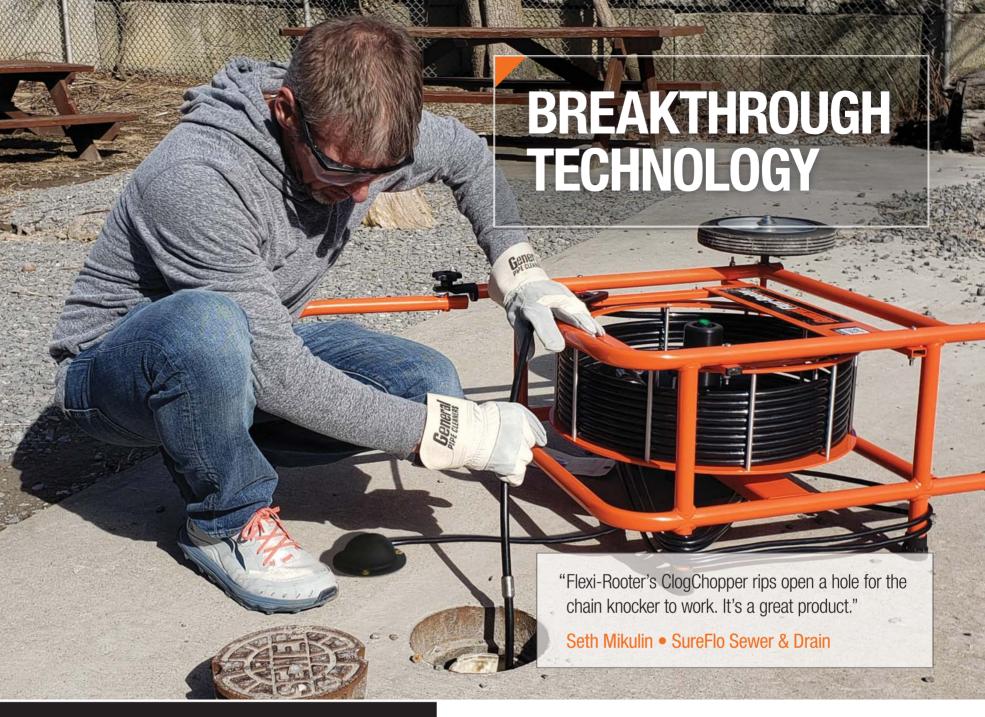
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Monthly Construction Input Prices Unchanged in July

■ SPECIAL TO CONTRACTOR

WASHINGTON, DC — Construction input prices were unchanged in July relative to the previous month, according to an Associated Builders and Contractors analysis of US Bureau of Labor Statistics Producer Price Index data released today. Nonresidential construction input prices fell 0.1% for the month.

Overall construction input prices are 3.1% lower than a year ago, while nonresidential construction input prices are 2.7% lower. However, prices increased in all three energy subcategories.

Turn to Monthly, page 8



IAPMO Applauds Water Efficiency Legislation

■ SPECIAL TO CONTRACTOR ■

WASHINGTON, DC — The International Association of Plumbing and Mechanical Officials (IAPMO®) has voiced its support for the *Water Efficiency, Conservation, and Sustainability Act of 2023*, legislation introduced by Sen. **Alex Padilla** (D-CA) and U.S. Rep. **Mike Levin** (D-CA) that would provide resources to communities to implement water-efficiency upgrades and to establish programs to repair leaks, especially in areas experiencing **Turn to Story, page 14**



PMI to Explore Industry's Potential at PMI23 in Seattle

■ SPECIAL TO CONTRACTOR ■

SEATTLE, WA — The PMI23 Manufacturing Success Conference, to be held Oct. 23-26 at the Lotte Hotel in this stunning city on Puget Sound, will explore how the industry can contribute to solving water-related challenges occurring worldwide.

PMI23 keynote speaker, **Moogega Cooper**, will explore this potential in her address titled "Limitless." A true guardian of the galaxy as the leader > Turn to PMI, page 64

Total Nonresidential Construction Spending

June 2020 - June 2023

\$1,100
\$1,000
\$1,000
\$950
\$850
\$850
\$7750
\$7700
\$650
\$2020
\$2021
\$2022
\$2023

Source: U. S. Census Bureau

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Editorial Offices

EDITORIAL STAFF

Group Editorial Director-Buildings & Construction
Mike Eby, meby@endeavorb2b.com

Editor-In-Chief

Steve Spaulding, sspaulding@endeavorb2b.com

Editor-At-Large

John Mesenbrink, jmesenbrink@endeavorb2b.com

Contributing Writer

Kelly Faloon

COLUMNISTS

Al Schwartz, Management Pat Linhardt, Hydronics & Radiant Patti Feldman, Technology Matt Michel, Marketing

Art Director, Susan Lakin
Ad Services Manager, Deanna O'Byrne
Production Manager, Sam Schulenberg
Classified Production Designer, Terry Gann
Audience Development Manager, James Marinaccio



Endeavor Business Media, LLC

CEO, Chris Ferrell President, June Griffin CFO, Mark Zadell COO, Patrick Rains CRO, Reggie Lawrence

Chief Digital Officer: Jacquie Niemiec
Chief Administrative and Legal Officer, Tray Kane
EVP Buildings, Dl & Lighting: Lester Craft
EVP Endeavor Business Intelligence: Paul Mattiol
VP, Buildings & Construction, Mike Hellmann
VP, Production Operations, Curt Pordes

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In Brief

The Equipment Leasing & Finance Foundation has

released the August 2023 Monthly Confidence Index. The index reports a qualitative assessment of both the prevailing business conditions and expectations for the future as reported by key executives from the \$1 trillion equipment finance sector. Overall, confidence in the equipment finance market is 50.4, an increase from the July index of 46.4.

StrataTech Education Group

has announced the opening of the newest Tulsa Welding School (TWS) campus in Irving, Texas. Dallas Metro is the fourth Tulsa Welding School campus and the fifth trade school for StrataTech (which also includes The **Refrigeration School, Inc.** in Phoenix). The Dallas Metro campus launched their Professional Welder and Refrigeration Technologies programs in August, in addition to an all-new Electrical Lineworker program.

Peterman Brothers, a leading HVAC and plumbing company serving the Greater Indianapolis area, honored the sacrifice of active and former military personnel and first responders at the Indiana State Fair on Friday, Aug. 18. Through the company's sponsorship, first responders and current and former members of the military were admitted free with their families on Military and First Responders' Day.

Bradford White Water Heaters

has renamed its long-standing classic car show in memory of company executive Bob Carnevale. Carnevale served the company for nearly 60 years, and as CEO from 1991 to 2009. Bradford White employees and retirees gathered on August 10 for an afternoon of fun showcasing their vehicles, with Taylor Alberts and his 1969 Chevy C10 long bed being voted as this year's winner.

The employees of **Uponor North America** have placed the company on the Star Tribune Minnesota Top Workplaces list as well as the Top Workplaces USA list. The ranking is based on survey feedback received by Energage, a research company assessing more than 27 million employees at 70,000 organizations. Uponor was also awarded three Culture Excellence awards focusing on Compensation and Benefits, Innovation, and Work-Life Flexibility.

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online exclusive

Top Stories

- CEO Warrior Moves to Larger Space
- A Comprehensive Guide to Ball Valve Maintenance
- IAPMO Receives Alliance for Water Efficiency's Affiliate Member of the Year Award
- Expand Bathroom Remodel Choices with Franchise Systems

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INDUSTRY PERSPECTIVES

- Want to know what is on the mind of Ed O'Connell, business coach and consultant?
- Want to know about how to get the flow rates right in hydronics from master trainer Steve Swanson?
- Want to know what the 14 characteristics are of a professional plumbing company? Matt Michel will tell you.

If so, our Industry Perspectives page is the place for you! Visit Industry Perspectives today at contractormag.com/industry-perspectives-0

Want to converse with experts in the plumbing and hydronics industries? Then check out CONTRACTOR's Industry Perspectives, serving up thoughtful, conversational content from the industry experts you have gotten to know so well at www.Contractormag.com.





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From Past to Present: Moving Water Quality Forward

BY JOHN MESENBRINK OF CONTRACTOR'S STAFF

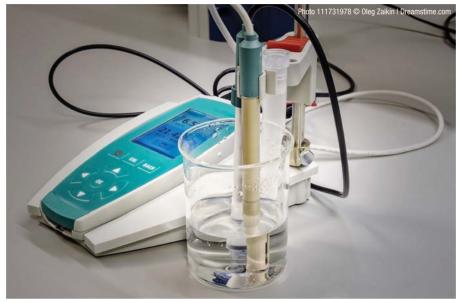
ecently, CONTRACTOR caught up with Amanda Moore, President, Water Quality Association (WQA), to talk about the organization and its direction. WQA represents more than 2,500 member companies around the world and serves as an educator of water treatment professionals, a certifier of water treatment products and a public information resource.



Amanda Moore, President, Water Quality Association.

CONTRACTOR: What are some of the major WQA initiatives moving forward?

Moore: Our three main focuses are advancing knowledge and professionalism of industry participants, increasing advocacy and driving public awareness and knowledge. Major initiatives include the bipartisan, bi-cameral introduction of the federal Healthy H2O Act (which ensures that low-income households facing water quality challenges in their homes can afford reliable water filtration technologies); expansion of educational offerings, including a strong focus on instructor-led training and professional certification; creating new member resources on such topics as ethics or PFAS contamination; and stronger consumer outreach through expansion and redesign of our consumer website, www.BetterWaterToday.org.



Water quality testing in a laboratory.

In talking with WQA's President Amanda Moore, it's clear that the organization's mission is to be the recognized resource and advocate for the betterment of water quality.

CONTRACTOR: Was there anything learned from the pandemic that helped drive these initiatives?

Moore: We learned that our members and consumers are eager for information, tools and resources that will help keep their water safer and healthier. We learned to better use video technologies such as Zoom for discussions, education and other outreach—and, conversely, we learned that our members really value and benefit from coming together in person to strategize and learn from each other. I think we've listened to our members and reached a good balance on that one.

CONTRACTOR: Piggybacking off one of the previous questions, what are some of the industry's major concerns as it pertain to water quality, efficiency and water treatment?

Moore: People who get their water from private wells are responsible for

their own water testing and treatment, and they need more resources to ensure water is tested regularly and treated appropriately.

Small community water systems must meet the requirements of the Safe Water Drinking Act but often are strapped for resources. Water Quality Research Foundation studies have found that most of the time, it is more economical, environmentally sensitive and quicker for these communities to provide point-of-use (POU) or point-of-entry (POE) treatment systems to their customers than to make improvements at the central treatment plant.

In many cases, POU/POE treatment can provide quick, efficient treatment for communities experiencing lead or other contaminants, and our members stand ready to share their expertise.

CONTRACTOR: How has WQA's advocacy, both at a federal and local

level, helped provide the public with greater access to water?

Moore: A WQA Task Force developed a proposal and worked with a senator's staff to draft the Healthy Drinking Water Affordability Act, commonly known as the Healthy H2O Act. Identical bills have been introduced in both the U.S. House and the Senate and have attracted bipartisan sponsorship. The bill would offer federal grants for water quality testing and certified treatment technology in rural and underserved communities where residents rely on private wells.

I am thrilled to report that on July 18, WQA CEO Pauli Undesser testified before the Senate Agriculture Committee's Subcommittee on Rural Development and Energy, discussing challenges faced by rural residents relying on private wells or small community water systems, encouraging the committee to consider POU/POE technologies as a key tool to improve water quality in rural communities, and urging the committee to include the Healthy H2O Act in the 2023 Farm Bill. She also offered her services as an expert on drinking water quality and the use of POU/POE technologies.

CONTRACTOR: I know education is a vital part of WQA. How does it get its "knowledge" out to the industry?

Moore: We offer both technical and business operations education through webinars, our Water Treatment Learning Center and our annual Convention & Exposition. We also operate an online Knowledge Base, which offers instant, updated technical information 24/7 to WQA members. Personally, I use the Knowledge Base at least once a week.

WQA offers technical fact sheets, white papers and a wealth of resources through our website, and we provide research reports through our research arm, the Water Quality Research Foundation. We sponsor a strong mentorship program where members can support each other. The mentorship program is one of my favorite

➤ Turn to Past to Present, page 58

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Monthly Construction Input Prices Unchanged in July

➤ Continued from page 3

ries. Natural gas prices were up 11.0% in July, while crude petroleum and unprocessed energy materials prices increased 8.4% and 8.0%, respectively.

"Goods prices continue to stagnate in the context of improved supply chains and a sluggish global economy," said ABC Chief Economist Anirban Basu. "It has been the improvement of supply chains that best explains recent positive economic outcomes in the US economy. As supply chains have normalized, unmet demand has been more readily satisfied. That has propelled transactional volume and economic growth. At the same time, the improved supply chain has helped push prices lower, contributing to the disinflation observable both in vesterday's consumer price index data and

	1-Month % Change	12-Month % Change	Change Since Feb 2020
Inputs to Indus			No. of Control of Cont
Inputs to Construction	0.0%	-3.1%	38.3%
Inputs to Multifamily Construction	0.0%	-1.0%	37.0%
Inputs to Nonresidential Construction	-0.1%	-2.7%	39.1%
Inputs to Commercial Construction	0.0%	-1.4%	39.6%
Inputs to Healthcare Construction	0.0%	-1.4%	39.1%
Inputs to Industrial Construction	0.0%	-0.5%	34.7%
Inputs to Other Nonresidential Construction	-0.1%	-3.2%	38.9%
Inputs to Maintenance and Repair Construction	-0.1%	-3.9%	36.3%
Commoditie	s		
Adhesives and Sealants	0.0%	4.9%	34.1%
Brick and Structural Clay Tile	0.0%	7.6%	25.0%
Concrete Products	0.1%	9.6%	31.6%
Construction Machinery and Equipment	1.6%	9.3%	27.2%
Copper Wire and Cable	-0.3%	-2.8%	28.1%
Crude Petroleum	8.4%	-24.8%	52.2%
Fabricated Structural Metal Products	0.1%	-2.0%	51.2%
Gypsum Products	0.3%	2.2%	41.9%
Hot Rolled Steel Bars, Plates, and Structural Shapes	-2.1%	-12.5%	53.3%
Insulation Materials	0.2%	4.2%	37.9%
Iron and Steel	-6.1%	-17.1%	55.9%
Lumber and Wood Products	0.3%	-8.9%	26.9%
Natural Gas	11.0%	-72.5%	21.8%
Plumbing Fixtures and Fittings	0.6%	2.0%	17.6%
Prepared Asphalt, Tar Roofing and Siding Products	1.0%	4.6%	41.1%
Softwood Lumber	4.4%	-17.3%	21.5%
Steel Mill Products	-7.6%	-20.9%	70.5%
Switchgear, Switchboard, Industrial Controls Equipment	0.3%	8.4%	37.0%
Unprocessed Energy Materials	8.0%	-38.8%	60.6%

today's producer price index release.

"With the exception of energy prices, which are heavily influenced by a cocktail of geopolitics, weather and investor frenzy, construction materials prices should be reasonably stable during the months to come," said Basu. "One exception may be construction equipment prices. The price of equipment expanded nearly 2% on a monthly basis in July and nearly 10% over the past year. Many contractors continue to complain about lengthy lead times for equipment as the nation continues to expand spending on infrastructure."

Visit abc.org/economics for the Construction Backlog Indicator and Construction Confidence Index, plus analysis of spending, employment, job openings and the Producer Price Index. 6

Red Cap Plumbing, Air & Electric Celebrates 20 Years Serving Tampa Bay

TAMPA. FL - Florida home service leaders Red Cap Plumbing, Air & Electric, a Wrench Group company, is proud to announce its 20th anniversary of service to homeowners and businesses across the Tampa Bay area.

plumbing, drain, water heater, heating, cooling, and electrical services to commercial and residential customers in the Tampa Bay area. The company prides itself on its reputation for

Founded in 2003, Red Cap provides timely services, professional results, and exceeding expectations, with a service experience, pricing, and work that is guaranteed. Over the course of its history, the company has received multiple awards, including a "Best of



from one professional to another We've got your back... Every time! Ashland

the Bay" award for being one of the top home services companies in the Tampa area.

"When we started 20 years ago, our staff wore baseball jerseys to symbolize our commitment to treating our employees and our customers like All-Stars," said Red Cap President Yeshua Stathos. "Though the jerseys are long gone, the caps remain, as does our dedication to All-Star service with our more than 150 team members, who have served more than 100,000 loyal customers in the Tampa Bay region."

In addition to its world-class customer service, Red Cap is connected to the Tampa Bay community through its "Red Cap Gives Back" campaign, where the company's employees volunteer time, services and equipment to area families in need.

For more information about Red Cap visit redcapnow.com or call 813/963-3056 (Tampa) or 727/474-8287 (Pinellas). G





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Ferguson Acquires Three Distribution Companies

➤ Continued from page 1

Ferguson is a leading value-added distributor in North America providing expertise, solutions and products from infrastructure, plumbing and appliances to HVAC, fire, fabrication and more.

"Bruce Supply, Kennedy and S. G. Torrice are great cultural fits for Ferguson and will help us better serve commercial mechanical, waterworks, and plumbing and HVAC trade professionals in key growing markets across the US," said **Kevin Murphy**, Ferguson CEO. "All three companies have great reputations and associates with strong local customer relationships that will help fuel our future organic growth."

Bruce Supply Corp.

Bruce Supply Corp. is a plumbing

distributor that serves commercial, mechanical, residential, HVAC and fire and fabrication contractors in the New York City (NYC) Metro region. Founded in 1969, it is headquartered in Brooklyn, NY and has six locations in New York and New Jersey. With this acquisition, Ferguson further enhances our plumbing, pipe, valve and fittings (PVF), hydronics and fire protection and fabrication offerings in the NYC Metro area—the nation's largest market.

The Kennedy Companies

Founded in 1973 and headquartered in Mount Laurel, NJ, Kennedy is a distributor of piping and related water, storm, sewer, and erosion control products. Kennedy has nine locations in New Jersey, Pennsylvania, Virginia

and North Carolina. This acquisition expands Ferguson's PVF, geotextile, stormwater and erosion control capabilities to more water and waste treatment plant and municipal customers in the mid-Atlantic region.

announced acquisition, Ferguson can further serve dual-trade plumbing and HVAC professionals in the New England region.

Ferguson has a proven track record of successful acquisitions and has

Ferguson has completed more than 50 acquisitions in the last five years.

S. G. Torrice

S. G. Torrice is a distributor of HVAC equipment, parts and supplies in the New England region. Founded in 1958, it is headquartered in Wilmington, MA and has 15 locations in Maine, Massachusetts, New Hampshire, Rhode Island and Vermont. With the closing of this previously

completed more than 50 acquisitions in the last five years.

The large, fragmented markets in which Ferguson operates comprise more than ten thousand small-to-medium (\$10-300 million revenue) independent companies across Ferguson's nine customer groups in North America.



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IWSH to Launch New Champions Initiative

— The International Water, Sanitation and Hygiene Foundation (IWSH) has delivered a new Plumbing Champions social project activity as part of the upcoming WorldSkills Australia

MELBOURNE, VICTORIA, AUSTRALIA National Championships & Skills Show, which was hosted Aug. 17-19 at the Melbourne Convention and Exhibition Centre.

> Developed and presented by IWSH the ongoing Plumbing Champions

program aims to inspire young people to pursue a career in the skilled trades, encouraging the next generation of plumbers and highlighting the best talents and practices from across the plumbing—and broader building and construction—industry. The program demonstrates t he real-world application of improved plumbing systems assembled in skills competitions or industry trade-show settings for the benefit of local communities.

Mooroopna, Victoria

For the upcoming project in Australia, IWSH coordinated the design, assembly and donation of new hand-washing facilities for the Yooralla Business Enterprise site at Mooroopna, Victoria. Yooralla is an organization that supports people with disabilities of all ages and needs across Melbourne and regional Victoria. The new facilities will be transported to Yooralla for immediate installation at the end of the skills competition, supported by apprentices from the Plumbing Industry and Climate Action Centre (PICAC), also based in Melbourne.

"IWSH belongs to the entire IAPMO Group family worldwide, so we are very excited to welcome this new Plumbing Champions initiative to Australia for the first time having seen similar IWSH community plumbing projects delivered in the past few years through partner IAPMO offices in India, Indonesia, and of course the US," said Paul Bonsak, managing director of IAPMO Oceania.

"It is an honor to connect with the upcoming national skills competition to support these plumbing upgrades for carers and staff," said Grant Stewart, IWSH International program director and long-standing WorldSkills Australia representative.

Reece Foundation

The project will be further supported with material and tool donations from the Reece Foundation, which works with volunteer tradespeople and partners to provide clean water and sanitation to communities in Australia and overseas.

Visit https://www.yooralla.com.au/ to learn more about Yooralla.

Visit https://www.reecefoundation. charity/ to learn more about the Reece Foundation. 6



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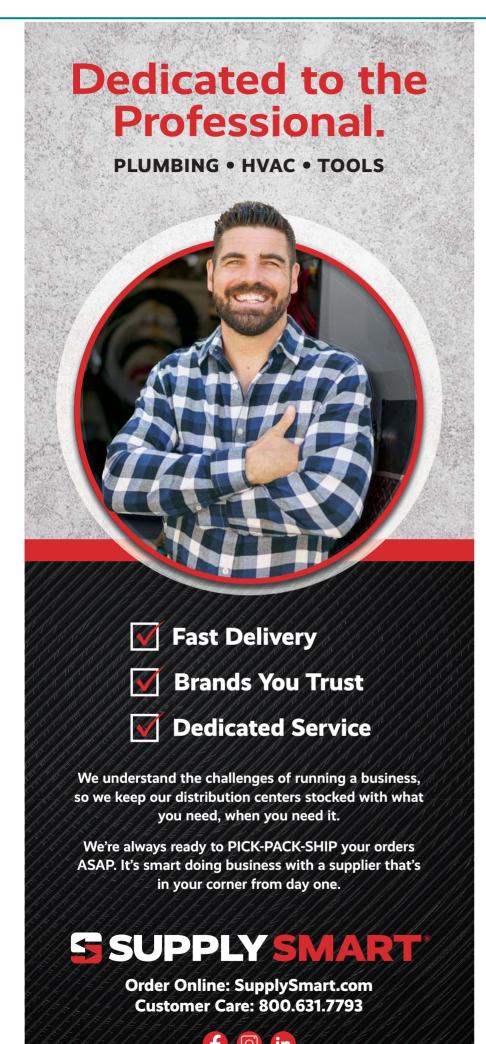


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IAPMO Applauds Water Efficiency Legislation

➤ Continued from page 3

severe drought. The legislation includes grants to states, tribal governments and local authorities that adopt IAPMO's Water Efficiency and Sanitation Standard for the Built Environment (WE•Stand).

Federal spending on energy efficiency and renewable energy has outpaced spending on water efficiency and reuse by approximately 80:1 since 2000, according to Sen. Padilla's office, resulting in millions of gallons of water wasted each year that could otherwise be stored or utilized. With water shortages expected in some portion of 40 of the 50 states, the legislation would address three primary areas:

- Water Efficiency and Conservation Grant Program: Provides funding to states, municipalities, and water systems to carry out water efficiency incentive and direct installation programs. Authorizes \$50 million/year for five years.
- Sustainable Water Loss Control Program: Provides funding and technical assistance to conduct annual water audits, implement controls to address losses, and establish water loss control programs. Authorizes \$40 million/year for five years.
- Assistance for Water Efficient Plumbing Code Adoption:
 Provides funding to state, local, and tribal governments to assist in the voluntary adoption and implementation of model water-efficient plumbing codes, including IAPMO's WE•Stand. Authorizes \$20 million/year for five years.

WE•Stand

Developed and subsequently republished at the conclusion of each threeyear code cycle, WE•Stand is designed to provide progressive codified requirements to optimize water use practices attributed to the built environment while maintaining protection of the public health, safety, and welfare. Development of this American National Standard draws upon IAPMO's core competencies and industry expertise. Key provisions include water efficiency and conservation requirements, IAPMO's Water Demand Calculator TM , alternate water sources for nonpotable applications such as gray and reclaimed water systems, potable and nonpotable rainwater catchment systems, non-sewered sanitation systems, leak detection and control, and vacuum drainage systems.

Unprecedented Challenges

"Communities in America are facing unprecedented challenges to our water infrastructure," said **Christopher Lindsay**, IAPMO vice president of Government Relations. "To protect water quality and availability, communities should be able to access the best resources available. IAPMO's codes and standards are created with public health and community resiliency in mind. They represent the best practices from industry, while at the same time helping to lower the upfront costs and ongoing operating costs of buildings."

"As the Western United States and much of the Southeast continue to experience significant droughts, investing in resilient water supplies is an increasingly urgent priority for communities facing rising water rates," Sen. Padilla said. "Water efficiency and conservation measures are fast and cost-effective solutions to ensure clean drinking water, to lower water bills, and to bolster a drought-resilient water supply. We must work to modernize our water infrastructure and make it more efficient—we all have a stake in this fight."

"The West has been facing historic droughts, and we must invest in resilient water supplies in order to improve water use efficiency and protect access to clean drinking water as we continue to face the worsening impacts of climate change," Rep. Levin said. "By increasing efficiency and reducing water loss, we can bolster supply and save consumers money. I am grateful to Senator Padilla for his partnership on this critical legislation that builds on ongoing state and local efforts to upgrade aging infrastructure and build a more resilient water system across the West."



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Department of Labor Recovers \$1.6M in Back Wages, Damages from North Carolina Contractor

DURHAM, NC – The US Department of Labor has recovered more than \$1.6 million in back wages and liquidated damages for 188 workers, many of them denied minimum and overtime wages by a North Carolina construction ser-

vices contractor who misclassified the employees as independent contractors.

The recovery follows a default judgment against R&R Construction Maintenance of North Carolina Inc. that the department's Office of the Solicitor ob-

tained in the US District Court for the Eastern District of North Carolina in October 2022. The judgment required the company to pay the affected employees \$838,007 in back wages and an equal amount in liquidated damages.



The court's action was prompted by the findings of an investigation by the department's Wage and Hour Division that found R&R Construction Maintenance misclassified the employees as independent contractors and did not pay them required overtime wages for hours over 40 in a workweek, in violation of the Fair Labor Standards Act. The division also learned the employer misapplied the motor carrier overtime exemption for two employees and did not pay another employee for their last day of work, also FLSA violations.

R&R misclassified employees as independent contractors.

"Misclassifying employees as independent contractors deprives workers of their full wages, benefits and employment protections and allows their employers to gain an unfair advantage over law-abiding competitors," explained Wage and Hour Division Regional Administrator **Juan Coria** in Atlanta. "The outcome of this case and the costly consequences that R&R Construction Maintenance suffered should serve as an example to other employers to make certain their employment practices comply with federal law."

Based in Durham, R&R Construction Maintenance of North Carolina Inc. provides garbage and debris removal services for construction sites.

Learn more about the Wage and Hour Division by visiting www.dol.gov. Workers and employers alike can help ensure hours worked and pay are accurate by downloading the department's timesheet app in Spanish or English, available for iOS and Android for free.

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Working Group Forming to Develop Cured-in-Place-Piping (CIPP) Inspectors Professional Qualifications Standard



MOKENA, IL — ASSE International is forming a working group to develop a professional qualifications standard for inspectors of cured-in-place-piping (CIPP) systems, a process for inplace pipe rehabilitation. The first

working group meeting is expected to be held in the Chicagoland area in mid-September.

To enhance the development of this standard, IAPMO has signed a memorandum of understanding (MOU) with NASSCO Inc., a non-profit trade association of organizations and individuals who operate in or are involved in the inspection, maintenance and/or repair of underground infrastructure, to develop the standard.

It Starts with Inspection

"With this technology growing as an option to complete pipe replacement, it's important to know and communicate the proper requirements for this technology, and that starts with the inspection community that can enforce

such requirements," said **John Watson**, senior vice president of Industry

The first working group meeting is expected to be held in the Chicagoland area in mid-September.

Relations and Business Development with The IAPMO Group.

Shelia Joy, NASSCO's executive director, added: "Partnering with ASSE

on this standard brings together the highly respected ASSE/IAPMO standards with NASSCO's deep knowledge of CIPP installations and its mission to set standards in the application of this proven trenchless technology."

Invitation to Participate

Industry stakeholders—including CIPP system installers and manufacturers, plumbing professionals, building owners and managers, engineers, AHJs, and the general public—are invited and encouraged to apply to participate. To become a member of this working group, a completed application (http://goo. gl/07vJP) and résumé must be submitted by Aug. 31 to Terry Burger, director of Product Standards, at terry.burger@asse-plumbing.org.





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Deion Sanders, Robert Irvine to Headline EPIC2024

SACRAMENTO, CA – Contractor University and OPTIMUS Financing, two divisions of the nonprofit Electric & Gas Industries Association (EGIA), have officially announced full event details for their EPIC2024 conference, which is slated to take place at the Disneyland Hotel Convention Center in

Anaheim, CA, on March 11-12, 2024. EPIC2024 will again include celebrity keynotes, breakout sessions led by industry experts, one of the industry's premier product and services exhibitions, and a networking party that, for the first time, will be family-friendly.



EPIC2024's keynote lineup will be as star-studded as any ever assembled in the industry, bringing together dynamic personalities, and a unique mix of leadership, entrepreneurial, and business know-how. The EPIC2024 keynotes are:

- **Deion Sanders**: NFL Hall of Famer, inspirational leader, successful entrepreneur, and the most talked about coach in college football, who leads the University of Colorado Buffaloes
- **Robert Irvine**: Acclaimed chef, entrepreneur, and philanthropist with a passion for helping businesses thrive, as seen on his hit TV series Restaurant: Impossible
- **Duncan Wardle**: Former head of innovation and creativity for Walt Disney Company and master storyteller with a unique approach to disrupting the status quo
- **Dustin Tavella**: Magician and motivational speaker known for inspiring creativity and personal growth, and the winner of season 16 of America's Got Talent

In addition to the keynote line-up, EPIC2024's educational offerings include a collection of breakout sessions led by some of the biggest and most well respected names in the contracting industry. Among many others, this year's breakout session presenters include **Tommy Mello**, author of Home Services Millionaire and host of the Home Service Expert Podcast, and **Gene Marks**, a national small business columnist frequently seen on Fox News, CNN, and a variety of other mainstream media outlets.

"We are thrilled to unveil the extraordinary lineup of speakers for EPIC2024," said **Bruce Matulich**, CEO and Executive Director of EGIA.

Registration Now Open

Registration for individuals who previously joined the EPIC2024 pre-sale list is now open, with registration for the general public slated to officially open on August 30th. Early bird registration pricing will be available until October 31, 2023. To learn more and view full event details for EPIC2024, visit EPIC2024.com.



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NTI Launches Regional Immersion Program

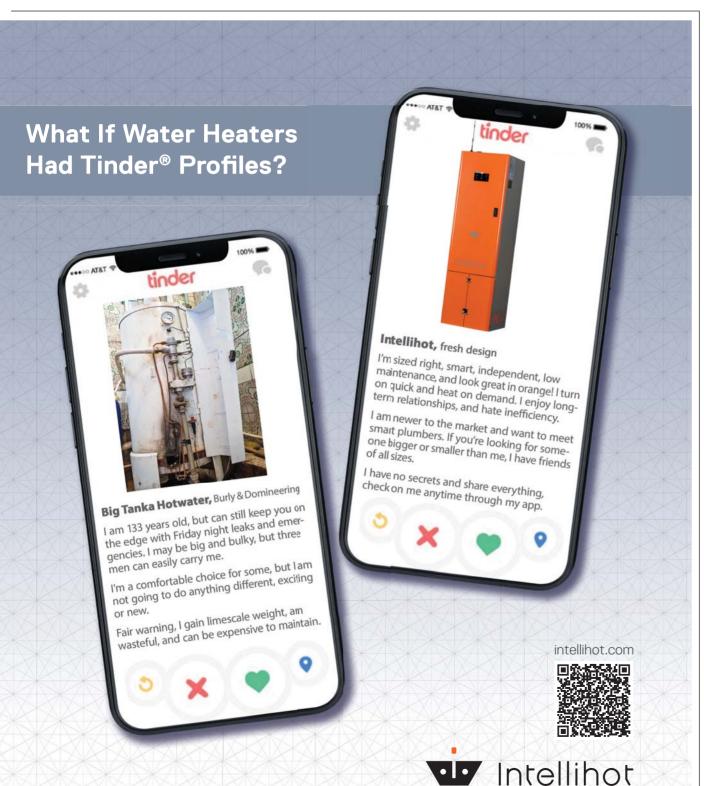
LAS VEGAS, NV — National Technical Institute (NTI), a state approved trade school with campuses in Las Vegas, Phoenix and Houston, has launched the Regional Immersion Program that offers specialized online trade school educational opportunities to expand workforce training solutions for HVAC,

Plumbing and Electrical contractors. Regardless of a potential employee's skill level, the new program allows for a diverse range of individuals to conveniently complete virtual instruction followed by four days of intensive in-person training, for contractors looking for entry-level workers.

The Regional Immersion Program

The Regional Immersion Program presents an excellent opportunity for contractors to overcome their recruitment hurdles and secure the qualified workforce they require. "We partner with contractors who are constantly

searching for new employees and hiring our students before they even graduate. Let's face it, people with skilled trade experience are hard to find and that has created a pressing need for a solution," said **David Lee**, COO and co-owner of NTI.





After completing a series of online tutorials, students attend lab sessions to reinforce the video learning. These sessions take place in two weekend training sessions—the first after reaching the midway point of online learning, and the second at the conclusion of the virtual course. The hands-on training classes are held Friday and Saturday once a month at any of NTI's campuses located in Phoenix, Las Vegas or Houston limiting the time away from the job. The in-person training is included in the tuition and covers hotel and meals for the weekend lab sessions.

"The Immersion Program has proven to be an invaluable asset to us. It has significantly expanded our talent pool, enabling us to consider candidates, regardless of their experience, but who we know could do a great job," said **Chase Cottam,** Service team Manager for Hobaica Services in Phoenix.

A Win-Win for All

"50 students have already been trained and become successful new employees for many companies throughout the country. Contractors see this as a chance to upskill new, inexperienced workers that they desperately need to retain. They can literally hire someone with little or no trade experience, put them through NTI's *Regional Immersion Program* and in no time have a fully functioning technician," said **Ryan Woodward**, CEO and coowner of NTI.

For more information about the Immersion Program visit *www.ntitraining.com.* ©

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by Al Schwartz PLUMBING CONTRACTOR

Ready to Grow?!... Or Not!

hile there are some plumbing companies that start up from "business models" where the principles are not journeymen, it is far more common that a company begins life as a one man show. The fact that you have even thought of going into business today, with the current economy, supply chain and, more importantly, manpower issues, speaks well of your confidence and courage—if not your pain tolerance.

Add to that leap the idea of growing your business. The idea of expansion can be daunting. I've detailed the scenario in other columns: a guy decides to go into business for himself, usually on the basis of "that one job" or a continuing series of service calls and referrals from friends, neighbors and acquaintances. He gets a truck (or already owns one), stocks it with tools, equipment, and materials then "puts out his shingle." Voila! He's in business!

Let us say that you are successful as a one-man shop. You follow good business practices, learn all you can about the business of being self-employed, and generally do most of the right things most of the time. Because you are really good at what you do, you get busier and busier, now regularly working six days a week... sometimes seven.

To grow, or not to grow...what a question!

The time comes to most, if not all, small operators when the idea of expanding becomes more than an idea. If you are doing things right, the word-of-mouth advertising alone will force the issue. Other catalysts include being given a project too large for him to do alone (as in, "this job is yours if you can man it next week"), landing a contract with a client whose service requirements force him to be two or more places at once, or even an unfortunate injury that forces him to hire help in order to keep his business moving while he convalesces.

Any, or all, of the above situations lead to expanding your business. You would think that these things (with



The level of stress incurred by a one-man shop on the verge of expanding is quite high for a lot of good, and some not so good, reasons.

the exception of the unfortunate injury) would be a cause for celebration, or at least a feeling of self-satisfaction—but you would be wrong. In most cases, the level of stress incurred by a oneman shop on the verge of expanding is quite high for a lot of good, and some not so good, reasons. Stepping out of the truck and into the deep end of the pool is something few do without trepidation.

More work... more headaches

Why all of this chest-beating and teeth gnashing about expanding? Where do I begin to answer that one? The reason most successful one-man shops stay that way is the control of all aspects of the business—scheduling, billing, collections, rolling stock—and most of all quality control of the work being performed. Customer relations are a big part of it as well. Expanding, by its very nature, requires the owner to relinquish the control that he has

coveted since he started the company.

The thought of hiring someone to interact with his best customers is nerve wracking to say the least. How are the new guy's communication skills? What kind of work does he do? Will he do things the way I do them? If he does things differently, is his way better, worse or only different than mine? Can I rely on the new guy to take care of my business like I would? Will he try to steal my customers? Will he represent my company well? All of these questions swirl around in our hero's head as he moves toward the expansion decision.

The question of \$\$\$

In addition to worrying about the new guy doing right by his business you have other, more practical worries to consider. These all revolve, in one way or another, around dollars and cents. To begin with, a new hire means purchasing Workman's Compensation

insurance, which is not cheap for a company that has never had it before.

Next comes all of the taxes for things like disability, unemployment and the other onerous tax burdens that all business people must pay. He's also got to consider the expense of purchasing and outfitting another truck and all the vehicle expenses like insurance, maintenance, rolling stock and fuel. Life was way simpler when all you had to think about was work, your truck and yourself

So, when you start thinking that it might be time to expand, you can be forgiven for having second or even third thoughts about it. When events conspire to force the issue, it is not something you will do lightly, but with serious forethought, planning and not a little fear.

The devil you know...

Some one-man shops that I am acquainted with absolutely refuse to expand under any circumstances because of the concerns outlined above. They simply let the work go by when they can't handle it, take care of their good customers and refer work to other shops when they can't get to it or if it is too large for one man to do. One master plumber I know told me, "After trying to hire people to train, and dealing with what passes today for apprentice applicants, not being able to get the simplest material in a timely manner and the government in my business every time I turn around, I've decided I'm going to stay a one man shop until I retire."

With our uncertain times, who is to say he isn't doing the best thing? \Box

The Brooklyn, NY-born author is a retired third generation master plumber. He founded Sunflower Plumbing & Heating in Shirley, N.Y., in 1975 and A Professional Commercial Plumbing Inc. in Phoenix in 1980. He holds residential, commercial, industrial and solar plumbing licenses and is certified in welding, clean rooms, polypropylene gas fusion and medical gas piping. He can be reached at omeletman01@ gmail.com.

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Women, Representation, and the Future of the Skilled Trades

BY STEVE SPAULDING OF CONTRACTOR'S STAFF

LEVELAND, OH — **Katherine**Lehtinen serves as Senior Vice
President of Marketing for Oatey
Co. Oatey has been a manufacturer
serving the residential and commercial plumbing trades since 1916, and
now include brands such as Cherne,
Hercules, QuickDrain and more.

In addition to the work she does promoting the brand, Lehtinen is a founding Executive Steering Committee member of the company's Diversity, Equity and Inclusion Resource Group as well as Executive Sponsor of Oatey's Emerging Professional Group. She is a member of the The House That She Built Executive Leadership Council.

The House that She Built had its start in a project by the Utah chapter of the National Association of Home Builders' Professional Women in Building (PWB) Council: a 3,200-square foot custom-built home in Saratoga Springs, Utah, designed and constructed by an all-female skilled labor team from across the country, and completed in 2021.

The House that She Built inspired a children's book of the same name, written by **Mollie Elkman** and illustrated by **Georgia Castellano**. Following Elkman's interview with Lehtinen on Oatey's company podcast The Fix (https://www.oatey.com/podcasts), The House That She Built has transformed into a movement hoping to inspire young women and show them the real rewards a career in the skilled trades can offer.

CONTRACTOR: Can you tell me a little bit about Oatey's Women's Resource Network? About how it got started, what its mission is?

Katherine Lehtinen: Oatey's Women's Resource Network is our third resource network that we have stood up over the years. It stemmed really out of our Diversity, Equity and Inclusion journey, and making sure that we have a diverse group of associates and making sure that they feel like they're represented and seen within the organization.

There are 17 members of the leadership board. All of them currently are THE HOUSE THAT
Supporter of workforce development or districtly scales and scales of the entry scale and scale and the support scale and the s

CONTRACTOR speaks with Oatey's Katherine Lehtinen about the company's Woman's Resource Network, The House That She Built and more.

women, but the events are open to everyone—men or women it doesn't matter. It's really just to have representation. But the Women's Resource Network's mission is to develop and support women at Oatey, both professionally and personally. The Network provides a platform for women's engagement and development through internal and external programming and community outreach, ultimately contributing to the development, recruitment, retention, and visibility of women at Oatey.

CONTRACTOR: Everybody knows that the skilled worker shortage is a big problem in the industry right now. Do you think the trades have an image

problem, and do you think that problem is worse among women? Is boosting the image of the trades a part of what the network is trying to do?

Lehtinen: I think there's a couple of things. One is, representation matters. It really does. And especially for young girls to see their moms or see people like them doing things that they might have an interest in pursuing. I do think that there has been, over the years, an image problem. We need to make sure we're addressing this is a viable, fun, great way to provide for your family. And if you don't want to go to college—or you do want to go to college—there are so many different avenues to get into the trades. We're just trying to tell

The actual House That She Built, designed and constructed by an all-female team.

Oatey Co. / Utah NAHB

The House That She Built was written to introduce young readers to the construction trades, and promote the idea that "jobs have no genders."

that story through the work that we're doing with The Fix podcast, and with The House That She Built.

CONTRACTOR: You talked about a couple different efforts that you've got underway. The House That She Built started as a book from Mollie Elkman and since then it's grown into a movement.

Lehtinen: Yes. What we know is that children already have these preconceived notions of what they should or should not do by the age of five. This book is geared towards young readers and shows how women have a place in this space and can be anything from the architect to the interior designer to a plumber to a tiler or painter. It's really trying to let girls—and also boys—see representation of women in the workforce.

As I talked about earlier, that representation is important. I have boys and my youngest (he's six) said, well, "girls don't do that," and I quickly said, "yes, they can."

It has been a great initiative for the Women's Resource Network at Oatey to

➤ Turn to Women, page 56





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Exceeding Expectations

by Kelly L. Faloon



This month, we're highlighting three plumbing franchises and how they have taken care of their employees and customers through good times and bad.

e've discussed the benefits of owning a plumbing franchise business in the pages of this magazine. We've explained how these businesses offer processes and procedures that allow owners to keep track of the right financials, and properly train and compensate their employees for low turnover.

And we've discussed the entrepreneurial spirit in the industry; research firm IBISWorld estimates that the United States has 127,435 plumbing businesses in 2023, employing 537,211

people and worth \$125 billion. Franchise Chatter notes that US plumbing service franchises are worth \$1.4 billion—3,000 businesses employing more than 7,000 people.

This month, we're highlighting three plumbing franchises and how they have taken care of their employees and customers through natural disasters, exposed young people to the entrepreneurial aspect and wonderful opportunities of plumbing franchises, and gone above and beyond to aid their communities when needed.

WEATHERING FLORIDA'S HURRICANES

Matt Black, owner of Benjamin Franklin Plumbing of the Treasure Coast (Port St. Lucie, FL), enrolled in a building trades school during his high school years in Indiana, where he learned all aspects of building a house—including plumbing.

"I didn't want to work in an office all day, so these skills allowed me to pursue carpentry when I moved to Florida," he explains.

Black developed a form of muscular dystrophy affecting his legs and ankles, so he could not be on his feet for long periods. Eventually, he took a job with a subcontractor plumbing company, moving from the warehouse to service manager to general manager.

In 2005, Black's boss bought a Benjamin Franklin Plumbing franchise and made Black the general manager. In 2019, Black and his wife purchased the franchise and, in 3-½ years, have nearly doubled the revenue. Today, this Benjamin Franklin Plumbing franchise has 10 plumbers, four apprentices and eight office staff.

The couple's business is in the northeast corner of Florida and no stranger to the vagaries of Mother Nature.

Since 2016, tropical storms and hurricanes in the Atlantic have been massively destructive: the National Oceanic and Atmospheric Administration says 22 storms from 2016 to 2022 caused a total of \$656 billion in damage—from wind damage and flooding.

"They can sometimes be a benefit, and sometimes they can be a detractor," Black notes. "When these storms come through, we prepare our people ahead of time because everybody can't take off at the same time to board up their houses."

He adds, "The biggest battle is getting ourselves back up and running so that we can get out there immediately to help our customers."

Office staff, plumbers and apprentices take shifts to protect their homes and help customers. Computers, phones and other electronic equipment are covered because you never know where a leak will come from. Computer backups are made to take home and as much furniture as possible is moved off the floor.

"We try to work up to the edge of the storm to help homeowners," he explains. "One of the most common things with homeowners putting up hurricane shutters or plywood is they drop the plywood or the shutter, knocking the hose faucet off the side of the wall. Now they've got water flooding everywhere."

His plumbers will work up to about 30- to 35-mile/hour sustained winds; then Black pulls the trucks off the road to keep his technicians safe. Communication with staff is a crucial issue, so there is a plan for everyone to meet at Black's house once it is safe to do so.

"The flooding hurts our customers



Matt Black, owner of Benjamin Franklin Plumbing of the Treasure Coast (Port St. Lucie, FL). The franchise employs 10 plumbers, four apprentices and eight office staff.

the most," he says. "If they are on well water, their well pump may be underwater. Some customers with water filtration systems may find them in their neighbor's yard or not at all, and they're without water. We order extra well pumps and other supplies. And we give homeowners the option to bury their filtration canisters 2 to 3 ft. in the ground."

He adds that sewer backup can be a problem from the city's lift stations. If they become faulty and don't work properly, plumbers cannot open them up and work on them. So, they will back up into customers' homes.

"We educate homeowners and make them aware that if the power goes out and they don't have a generator backup, the pumps will not work," Black explains. "They need to be cautious regarding the amount of water they're using to ensure they don't have sewer problems."

Black is proud of the culture and the teamwork at his Benjamin Franklin plumbing franchise. "Our motto here is always do what's in the client's best interest, and our team truly cares about our clients."

FEEDING ENTREPRENEURIAL DREAMS

For **Matt O'Rourke**, president of ZPlumberz International, opening his own plumbing business during the Great Recession was done out of necessity, not out of planning. He learned the plumbing and hydronics trade and received his journeyman's license in Detroit.

Moving on to another plumbing company, he learned the service side of the business. He had intended to take over the company once he acquired his master plumber license, but the owner sold the company to a consultant instead.

"In April 2008, I found plumbing professors.com and bought it," O'Rourke says. "I went on Craigslist, found a

job, used those funds to buy a truck and started branding and putting it all together. It was a challenge as the economy was going the other way, but I was able to get work."

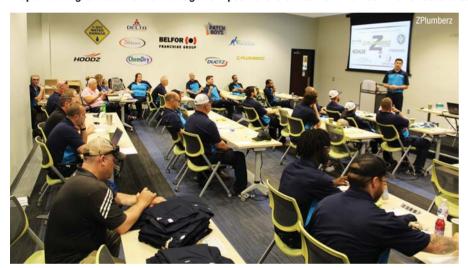
His former boss began letting go of O'Rourke's friends or people he had hired; they came to O'Rourke looking for jobs.

"It was good for me early on because it forced me to get out of the truck and focus on marketing and building the actual business," O'Rourke explains. "Within a year, I had four or five trucks, and we were off and running."

In 2014, Plumbing Professors had seven locations with a good revenue stream, but O'Rourke had put plumbers



Proper training for field work or management positions is critical for ZPlumberz franchisees to succeed.



 $\label{lem:mattor} \textbf{Matt O'Rourke, who heads up Zplumberz, sees franchising as an opportunity to get more young people into the plumbing business by feeding their entrepreneurial aspirations.}$

into management positions. "I hit a bump in the road, realizing I didn't train the plumbers as I should have for management positions," he says. "I struggled through that and started looking into franchising. I thought it was odd that an industry as old as plumbing didn't have a big, national name focusing on plumbing and drains."

In 2018, O'Rourke heard from Belfor, a property restoration contractor, about heading up its plumbing franchise ZPlumberz.

"I am very passionate about the trades and the industry," he says. "I see plumbers leave jobs to open their own companies, they last two to three years, and then they end up looking for a job again. I believe franchising can help solve this."

O'Rourke realized that plumbing business owners could get burned out fast if they didn't build the right team around them so they could run the business, not work in the business.

"I've always wanted to help plumbers once they get that entrepreneurial spirit," he explains. "Instead of making them feel horrible for wanting to go off on their own and have the same opportunities we've all had as business owners, we should encourage them."

O'Rourke sees franchising as an opportunity to get more young people into the plumbing business by feeding their entrepreneurial aspirations.

"We have parents calling us and asking how to get their kids involved in plumbing," he says. "We take tremendous pride and passion in getting out to schools and the community to build up the plumbing trade and help them see that it's a great opportunity. ZPlumberz is building a model where young people can see a career path in the trades."

O'Rourke notes that once someone receives their plumbing license, that person has the foundational and mechanical aptitude to understand plumbing. "If they want to go into accounting or marketing or a leadership role, now they have the foundation to do much more and help out plumbing business," he says. "We need to take a different approach to trades education, and ZPlumberz has adapted to it."

IT'S ALL ABOUT COMMUNITY

Scott Hobbs, owner of Mr. Rooter Plumbing of NW Florida, explains that part of the franchise's mission is to give back to the community. "Our preferred way to give back is to local nonprofits whose sole purpose is the betterment of the citizens within our local community," he says.

These organizations are The Arc of the Bay, Boy and Girls Club of Bay County, Emerald Coast Hospice, Covenant Christian School, Pregnancy Resource Center and Children's Advocacy. The Mr. Rooter franchise was honored with a 2022 Business Partner of the Year from Arc of the Bay, and a Certificate of Philanthropy and Lifelong Volunteer from Boy and Girls Club of Bay County.

"Some of the ways we give back is by giving these organizations an annual credit for plumbing services throughout the year," Scott Hobbs explains. "Once that credit is used, we discount all other work at our cost."

His wife, **Pam Hobbs**, developed and organized summer classes for the Boys and Girls Club to teach them practical life skills: basic banking (checking, savings, CDs, debit and credit cards), different industry dress codes, appropriate interview behaviors, introduction to plumbing tools and materials and a Mr. Rooter plumbing shop and equipment tour.

Giving back to the community also includes industry training and recruiting. The Hobbs work with their



The Boy and Girls Club of Bay County have a shop visit at Mr. Rooter Plumbing of NW Florida to learn about plumbing.

local vocational trade and high schools to offer employment for graduating students. "Working with a local

plumbing contractor, we recently installed the plumbing in tiny homes

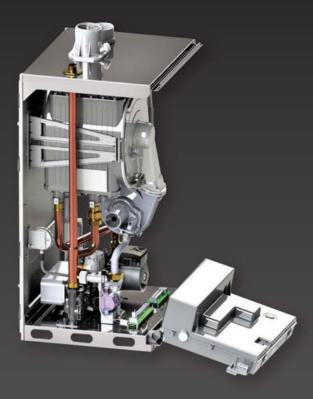
➤ Turn to Exceeding, page 66





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by Patrick Linhardt HYDRONICS MANAGER AT CORKEN STEEL PRODUCTS CO.



Near Boiler Piping Problems

Recently, the photos that accompany the columns haven't been matching up as well as I like, and since "it's all about me," I wanted to make sure I took some job site photos to use for this column. It was time for a column about steam and I hadn't written about an important component of the near boiler piping for steam boilers yet.

A call came in to look at a steam job—my opportunity to get the shots. This steam boiler heats forty-six cast iron radiators. The building owner's "consultant" had a list, with each size. The first floor is an art gallery and workshop, while the upper three floors are apartments.

(The first floor used to be the paint store I used for years—it looked a lot different with art on the walls.)

The contractor, the consultant and I went down to the boiler room, which is in the middle of the basement. Immediately, I realized this boiler wasn't photo ready as a good example of how to pipe a steam boiler. Then I figured that a bad example can teach a thing or two also.

The Hartford Loop

By now, if you're looking at the photo of the side of the boiler and you know just a little bit about how to pipe one, you've noticed that there isn't a Hartford Loop. Every steam boiler installation guide I have seen during the past 40 years, no matter the manufacturer, shows a Hartford Loop as part of the near boiler piping.

Yes, the Hartford Loop was developed by the Hartford Insurance Company. Why would an insurance company get involved with steam boiler piping? To avoid paying out money, of course. Steam boilers that they insured were exploding, which wasn't good for business. This is back in the early days of coal-fired steam boilers, without reliable water level control since everything was manually controlled.

If you put water into an empty steam boiler that is hot, that water instantly expands to 1700 times its volume. The boiler then might launch itself out of



Take a close look at this side-view of the near boiler piping. Can you see what's missing?



Originally, there was a trap between the two $\frac{1}{2}$ " caps. Now, there isn't a path for the air from the end of the steam mains to get out of the way of the steam.

the building to land in the front yard. Exciting, but a very dangerous don't-try-this-at-home kinda thing. The water usually leaked out of the boiler from a leak in a low wet return line.

How it Works

The main function of the loop is to keep water in the boiler, which prevents dry-firing and boiler explosions. Another function of the loop is to equalize the pressure on both the supply side and return side of the water in the boiler, so

the build-up of pressure felt on the waterline doesn't just push the water out of the boiler.

With the steam pressure building up in the boiler felt on the return side, water stays where it supposed to be, generating steam to heat the building. As you can see in the photo, there is no connection between the large supply pipe leaving the top of the boiler and the smaller return pipe heading straight into the bottom of the boiler.

The Hartford Insurance Company wouldn't approve of this piping arrangement, nor would the boiler manufacturer or the city inspector. (To get more information on the Hartford Loop, go to pages 102 and 103 of my Field Guide, available as a free down-

load at *steamupairoutwaterback.com*. Information should be shared, like Ben Franklin suggested.)

An early attempt to keep the water in the boiler was a swing check valve. Water returning to the boiler swings the flapper open to allow water to flow into the boiler. During the off cycle, the flapper prevents the boiler water from flowing the opposite way out of the boiler. Unfortunately, a check valve in a wet return, given the nature of the junk/rust/muck in the bottom of a steam system, quickly sticks open or clogs up. Always go with the Loop.

Worse the More You Look

Back to the side view photo, the piping also lacks a header. It's just a straight shot of steam to the distribution piping. Any moisture carried up from the water line goes out to the supply lines, rather than draining back to the return line through the equalizing line off the header. This near boiler piping gets worse the more you look at it. The contractor promised to install the new

boiler with correct near boiler piping.

To add insult to injury, take a look at the other photo. This is a two-pipe steam system, meaning it has both supply mains and return mains. The county auditor's website says the building has been around since 1929, during the Golden Age of Steam. A two-pipe system from this era removed the air from the entire system at one location in the boiler room, which makes perfect sense to me.

The air in the steam supply main passes through a steam trap to the dry return, which carries the air back to the boiler room at ceiling height. That's the far end of one of four dry returns in the other photo. The condensate from the radiators flows along the bottom of the pipe to the elbow that points down, which connects to the wet return to carry the water back to the boiler.

Originally, there was a trap between the two ½" caps. Now, there isn't a path for the air from the end of the steam mains to get out of the way of the steam. This causes uneven heat in the building. Looking around the boiler room, I found that the original main air vent had been removed. No place for the air to get out even if the trap was there. Funny things happen to steam systems over 94 years.

The consultant said the only complaint was the first floor got too hot. The air probably gets pushed by the steam to the top floor radiators and gets stuck, blocking the flow of steam into the top floor radiators, overheating the first floor. I said air venting would also have to be corrected if the new boiler wanted a chance of heating evenly.

Always take a look around the building. On occasion, you'll be surprised at what's there and what's not there.

Patrick Linhardt is a thirty-seven-year veteran of the wholesale side of the hydronic industry who has been designing and troubleshooting steam and hot water heating systems, pumps and controls on an almost daily basis. An educator and author, he is currently Hydronic Manager at the Corken Steel Products Co.



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Tankless Manufacturers React to Proposed Water Heater Efficiency Standards

BY STEVE SPAULDING OF CONTRACTOR'S STAFF

s reported in CONTRACTOR's August print edition, on July 21st the Department of Energy proposed new energy efficiency standards for residential water heaters. The proposal would require the most common-sized electric water heaters to adopt heat pump technology, and gas-fired instantaneous water heaters to adopt condensing technology.

Significantly, the standards would demand 91% efficiency from most tankless water heaters, while traditional tank-type heaters would only be required to increase their efficiency from 65% to 70%.

These standards are estimated to save Americans approximately \$198 billion in energy costs, while reducing 501 million metric tons of carbon dioxide emissions over the following 30 years. DOE last updated residential water heater efficiency standards—which are required by Congress—in 2010.

CONTRACTOR interviewed representatives from several tankless water heater manufacturers to gauge the industry's reaction.

Rinnai

Perhaps the strongest push-back on the proposed standards came from Rinnai, a top-selling brand and a pioneer of tankless technol-

ogy in the North American market.

"As currently drafted, DOE's proposed rule will create an uneven market that effectively bans an already energy efficient product and puts American jobs at risk," said Frank Windsor, president of Rinnai America.

Windsor is of the opinion that the proposed standards are the result of a bad compromise, and that non-condensing, gas-fired tankless still has an important role to play in the overall carbon-reduction equation.

"The tankless water heater is the most efficient way to heat hot water with a gas appliance and a non-condensing category is an important piece, because it's basically the opening price point,"



Windsor said. "It gets the middle-class consumer into tankless technology and it also gets a large portion of the country South of the Mason Dixon line into the technology because of the warm water temperatures.

"So from our view, make the modifications on electrification, make the changes that you want to tank, but keep the non-condensing, because it's already at a 80% efficiency and above. Then allow the consumer—when they go to tankless— to decide for themselves, do I want non-condensing or condensing? Don't take that choice away from the consumer."

Rinnai has set up a page on the company website that allows consumers opposed to the new standards to quickly and easily contact their Senator, Representative or the DOE:

www.rinnai.us/tankless-water-heater-doe-ruling#/2/

"We've had over 6,000 people visit our website and send letters to their local Congress people along with the Department of Energy, voicing their displeasure to this choice," Windsor said.

Jason Fleming, Executive Vice President and General Manager for Noritz America issued a statement on the proposed standards that echoed Rinnai's in several ways.

"Noritz supports the Department of Energy's efforts to reduce our nation's carbon footprint. Water heater manu-

NORITZ been actively in-

facturers have ALWAYS HOT* volved in that ef-

fort for years, yet we know there is still work to be done," the statement read.

"However, at Noritz, we are puzzled that the DOE would—at this stage want to eliminate non-condensing tankless water heaters rather than conventional, non-condensing storagetank units found in most American homes today. After all, the energy efficiencies of these tank units are substantially lower than that of non-condensing tankless water heaters—on the order 60% versus the 80%+ efficiencies offered by most non-condensing tankless models.

"We strongly believe that 80%-efficient tankless water heaters still have a great many worthwhile uses, offering sustainable, green-building solutions to specific trending applications, such as accessory dwelling units (ADUs), tiny homes and many more.

"For that reason, Noritz hopes the DOE and other governmental bodies will reconsider their proposal in favor of retaining non-condensing tankless technology as a still-effective means of reducing the carbon footprint of many more American homes."

A. O. Smith

A.O. Smith manufactures a wide range of water heating equipment, including both tanked and tankless units.

"We don't think the new regulations



are overly burcially with the

goals in mind: electrification, decarbonization, overall energy efficiency," said Isaac Wilson, A. O. Smith senior product manager for tankless water heaters.

"We may have some proposals in the future, slight, minor changes or updates. But, overall, we feel that the regulations are in line with our expectations, and we don't feel they are overly burdensome for our industry," Wilson continued. "Most, if not all tankless manufacturers right now already have products that meet the new standard. I understand concerns that there might be a disruption in the marketplace for replacement scenarios, but really that's the only potential issue, and even that, by itself, is not an undue burden in most cases."

Intellihot

Intellihot is a manufacturer of both gasfired and electric tankless water heaters specializing in commercial products. They released a brief statement on the proposed regulations saying:

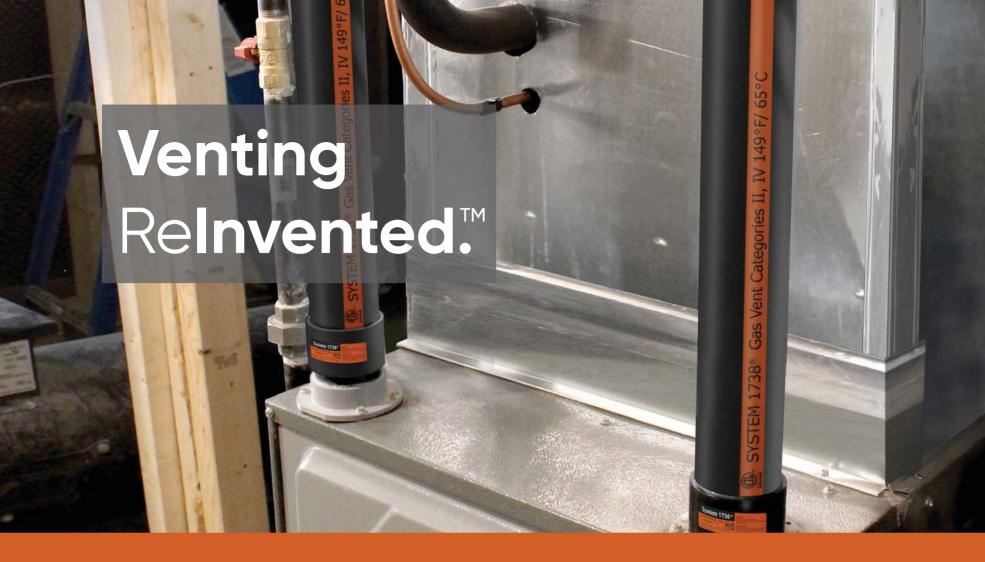
"Buildings account for about 40% of all US energy consumption and a



similar proportion of greenhouse gas emissions. As we have all witnessed effects of global

Intellihot in recent years the

warming have dire consequences on all of us. The DOE draft rule will force the hand of many manufacturers to invest in development and manufacturing of safe, effective and cost-conscious products. Which is already the status quo at Intellihot. We are in favor of the US Government taking decisive action against climate change."



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REHAU Announces Partnership with BDA Manufacturers' Representatives

LEESBURG, VA - REHAU, a leading manufacturer of polymer-based solutions for mechanical and plumbing systems, announces its partnership with BDA Manufacturers' Representatives. As of August 14, BDA will extend their product expertise by representing RE-HAU in Indiana and Kentucky. The partnership between REHAU and BDA combines decades of knowledge and experience in the mechanical and plumbing industry, allowing each company to better support contractors, engineers and wholesalers in the region.

A Holistic Approach

BDA is a well-respected manufacturers' representative agency known for their holistic approach to the commercial and residential construction market, providing Indiana and Kentucky with a diverse range of products and an expert level of service since 1986. With knowledge, collaboration, perseverance and harmony as the cornerstones of their business, BDA is committed to solving their clients' challenges with premium manufacturers and superior support.

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- Hydronics basics and fundamentals
- Design, construction and operation of condensing boilers
- Proper installation, venting, piping and wiring, as well as set-up and programming of controls
- Boiler start-up, maintenance and troubleshooting

Registration for this year's School of Better Heating classes is \$99 for the oneday sessions and \$199 for the two-day sessions, and includes reference materials, breakfast and lunch and a certificate of completion. For more information or to register online, visit www.weil-mclain. com/residential-training.

- plumbing and geothermal applications. PEXa offers benefits over copper and other polymer piping such as cost-effective installation, enhanced temperature and pressure capabilities and corrosion resistance.
- In 2017, the company further pioneered the proprietary REHAU EVERLOC+® compression-sleeve fitting system, providing plumbing contractors and installers with quick yet secure connections.
- Offering a range of products to meet the needs of contractors and installers, the REHAU F1960 cold expansion fitting system is an additional option that supports safety, reliability and cost savings.

Regardless of the REHAU fitting system chosen, RAUPEX pipe has a 25year limited warranty. The products developed at REHAU are backed by a team of experts who will support BDA representatives to deliver comprehensive project support to customers.

"REHAU is excited to partner with BDA to strengthen our support networks for customers in Indiana and Kentucky," says Mark Hudoba, Vice President of REHAU building solutions for the Americas region. "This partnership brings together innovative solutions from REHAU, extensive industry expertise from BDA and a shared customer-centric mindset. As a team, we will work together to ensure our customers have the support they need to succeed."

"BDA and Associates are proud to represent REHAU in Indiana and Kentucky," says BDA CEO **Bob Danielson**. "BDA and REHAU share the same integrity and commitment to our distributors and contractor partners and look forward to our mutual success."

Learn more about REHAU at www. na.rehau.com/mp and on LinkedIn, X (formerly known as Twitter), Facebook and Instagram.

Learn more about BDA at www.bda. us. The BDA location in Louisville, Kentucky can be reached at 877/422-5435 and info@bda.us. 🖰

Weil-McLain® Presents 'School of Better Heating' Personalized **Training Programs for Residential Heating Contractors**

BURR RIDGE, IL — Residential heating contractors can hone their boiler technology and hydronic skills and knowledge by participating in a Weil-Mc-Lain® 2023 School of Better Heating training program this fall. The School of Better Heating program is an annual series of comprehensive condensing boiler technology training seminars from the leading North American designer and manufacturer of hydronic comfort heating systems.

The Condensing Boiler Technology & Hydronic Fundamentals course will be available in one- and two-day sessions and feature seminars and hands-on training for condensing gas boilers, including Weil-McLain's ECO® Tec Series

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2 high-efficiency premium residential boiler. This year's training schedule kicks off in Pittsburgh on September 12 and will continue through November at various locations including:

- September 12 Pittsburgh
- September 13 Cleveland
- September 13-14 Westchester County, N.Y. (Two-day session)
- September 19 Stevens Point, Wis.
- September 21 Milwaukee
- September 26 Duluth, Minn.
- September 26-27 New England / Raynham, Mass. (Two-day session)
- September 28 Twin Cities, Minn.
- October 10 Detroit
- October 12 Cincinnati
- November 2 Akron, Ohio



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US Marine Resumes Family Boiler Business

SPECIAL TO CONTRACTOR

OSTON, MA — **Brian Balboni's** father, **Tom**, founded Balboni Plumbing & Heating in 1970. He ran the business in Wellesley, MA, for 37 years before giving away all of his work and retiring. He didn't know Brian would start the family business back up again some 11 years later.

Joining the US Marine Corps in 2008, Brian Balboni spent three deployments in Afghanistan training Afghan National Army soldiers, a task he resumed at Camp Pendleton, near San Diego, when he returned stateside. He left the military as an E5 sergeant in 2016.

Balboni explains that the military gave him the work ethic and sense of responsibility needed to run a successful company. His platoon included 190 troops, so he learned to lead.

"After I got out of the Marine Corps, I worked for a pipeline company in California as lead pipelayer for two years," said Balboni. "My background was in plumbing, so everything was intuitive."

In 2018, when his mother was diagnosed with cancer a second time, Balboni moved back to New England to rebuild Balboni Plumbing & Heating, with a focus on boiler work.

"I got my Journeyman license immediately upon returning to Mass," said Balboni. "I had all the paperwork done before enlisting. I'd just never taken the test. I took online courses from Masters Plumbing & Gas School to freshen up, and the rest is history."

Back to Boston

"Dad and I began working together in 2018," continued Balboni. "He still had his plumbing license, but he also had major back issues. Everything was a lot heavier back in his day; boilers, pipes, tools, you name it."

Today, Balboni Plumbing & Heating serves Boston's Metro West, and they rarely leave Wellesley.

"I stay close to home because it makes life easier," said Balboni. "Most of our work is residential, and we don't do air conditioning work. I refuse to. People are grumpy when they're hot. When they're cold, they're just happy you responded."



After three deployments in Afghanistan as a Marine, Sergeant Brian Balboni returned home to re-start the family business in Wellesley, MA.

Brian Balboni talks about the family business, including details on a boiler retrofit job that will save his customer thousands.

"For example," he continued, "Late one Christmas Eve I answered a noheat call from a woman with a newborn. She had a six-year-old Alpine condensing boiler and didn't know that condensing boilers should be serviced from time to time. It had never been cleaned. I serviced it, fired it up and calibrated it. On my way out the door, she gave me a hug."

Strange Summer

Balboni is the owner, operator and sole employee of Balboni Plumbing & Heating, but he does partner with friends who own similar companies. They help each other out when the jobs get too big.

"In the summer, I usually try to find a new home construction project or two, but this year has been different," said Balboni. "I've been installing a boiler every week. Like right now, I'm working on a big garage slab and driveway snowmelt system."

A few weeks before that, Balboni called a friend to help him with a big retrofit on a system that hadn't been touched in the past half century.

"I initially went to this home because

the husband tried fixing a shower valve, breaking it in the process," explained Balboni. "We got to talking and he showed me around the house. He asked if I did oil to gas conversions. When I told him that I did, regularly, we went to the basement."

Gravity Fed

The three-story, 3,500-square-foot home was built in 1826. The boiler wasn't original, but almost everything else was. A gravity-fed hydronic system, complete with cast iron radiators and three- and four-inch pipe made up one giant zone; the only zone. Gerald Ford was in the oval office when the seven-section boiler was installed.

"I made a recommendation and gave him a quote in February," said Balboni. "He wanted to wait until heating season was over to proceed. We tackled

➤ Turn to US Marine, page 42



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US Marine Resumes Family Boiler Business

➤ Continued from page 40

it in July when the family was on vacation and we knocked it out in six days."

Two weeks before cutting out the monstrous pipe, Balboni injected the system with Fernox F3 cleaner to clean the radiators, which would remain in place. Two of them—luckily on the ground floor—were completely clogged, requiring them to be removed, power-flushed, sandblasted and repainted.

Once the whole hydronic system had been flushed and everything but the radiators had been removed, Balboni began re-installing the system.

Not Gravity Fed Anymore

"We installed a 210 MBH Aspen boiler," said Balboni. "I install Alpines more often, simply because I know the unit like the back of my hand, but the Aspen offers everything the Alpine does in a slightly shallower cabinet. That was a plus here. The Alpine and the Aspen are simple to install, reliable, and many of the parts are interchangeable, like the flame sensor."

"Plus," he continued, "US Boiler Company has been around for so long that customers know the name. If they don't directly request it, it's an easy sell."

The stainless steel, firetube Aspen boiler is also available in wall-hung models with capacities between 85 and 270 MBH and 320 and 399 MBH light commercial models are available for floor-mounted configurations. A 155 MBH combi is also available.

The system was zoned with Taco



The new hydronic system serves cast iron radiators from the 1800s.

007e circulators, and a magnetic Spirotherm Quad air and dirt separator was installed to clean the system and protect the circulators. The boiler and near-boiler piping were complete by day two.

Zones, Finally

"We broke up the system by floor, minus the first floor, which has a kitchen zone and a living room zone," said Balboni. "I suggested that the second floor also have two



Balboni Plumbing & Heating completed an oil-to-gas conversion that saved the homeowners roughly \$6,500 per year.

zones, but the owners didn't care if the master bedroom was lumped in with the rest of the floor. The third story is also one zone. The main supply and return lines for each zone are one-inch, with mono-flow tees diverting water to three-quarter-inch PEX for individual radiators."

Zoning the third floor was the toughest challenge. Originally, the supply and return for the third floor had been tapped off the second floor radiators. Balboni had to find these connections to cap them off. This included cutting small holes in the wall to locate the connections.

PEX supply and return lines were run to the basement. This alone took two days. The only other zone is a 60-gallon indirect water heater to replace the natural gas-fired tank.

Fernox F1 Protector was added to the system upon start-up. Balboni plans to flush it again early in the heating season simply because the radiators were so dirty.

Staggering Savings

"Our price for fuel oil here is extremely high," said Balboni. "I'm surprised this system hadn't already been converted to gas, considering there's already a gas line to the house."

The old boiler had a 275-gallon fuel tank, which the homeowner filled three times per winter, and that's with the thermostat set to 62°F.

"They were spending \$7,500 per year to heat the house, and that didn't include DHW production," said Balboni. "They probably won't spend \$1,000 on natural gas this year. Conservatively, that's an annual savings of \$6,500."

The owners returned from vacation and the first thing the homeowner did was take a long shower, because, finally, he didn't run out of hot water. They were impressed with the new system, but Balboni explained to them that they won't even fully appreciate it until heating season arrives.

"The husband was blown away by how much new room was in the basement," said Balboni. "He's currently talking his wife into buying a pool table for that space. With their new energy savings, they can afford one!"

Noritz 'Retrofit Rewards' Offers Contractors Opportunities to Win Gear or Cash Prizes

FOUNTAIN VALLEY, CA — Noritz America is launching a sweepstakes promotion that will allow professional contractors to earn cash awards, branded gear and discounts on online purchases when installing Noritz EZ and NRCR Residential Condensing Tankless Water Heaters.

Launched earlier this summer, select models in the Noritz EZ and NRCR tankless series are now available at supply houses across the United States, offering contractors a free Scratch & Win

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To redeem a scratch-off card, the recipient must complete the online Redemption Form at *Noritz.com/Retro-fitRewards.com*. Visit the site for detailed instructions.

For more information on the Noritz Retrofit Rewards promotion, contractors should visit *noritz.com/retrofit rewards*.

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THERE'S ONLY ONE CHOICE

by Patti Feldman **COMPUTER AUTHORITY**

Al-Assisted Solutions to Enhance Productivity

ARDZ (www.yardz.com) is a software platform geared to help construction companies and general contractors efficiently manage rented or owned construction equipment and other assets. The software enables users to automatically track where an asset has been and where it currently is, who has it, and when it is scheduled to be returned. It also provides the status and terms of all rental contracts, as well as associated checkout notes to indicate damage and repair.

A utilization log can track fuel, hours, and mileage and set up automatically triggered maintenance events based on day, weeks, months, years, miles, or operating hours. Team members can upload photos and documents taggable with keywords, for reference. You can set up geofences on all your projects and equipment yards, enabling telemetry data to automatically update current locations and location history.

A Monday morning email to all team members lets them confirm possession of the tool or asset tracked to their possession.

YARDZ includes several customizable, pre-built forms and the ability to build your own forms and allows you to create an unlimited number of permission groups which can limit or grant access to specific functionality and features.

Pricing: per monthly fee, with three plans available scaled by number of user accounts, limited or limitless projects, and availability of advanced features.

Pricing format: per recording license per year

Workyard

Workyard construction workforce management software (www.workyard. com) is a job scheduling and time tracking solution that enables contractors to track the GPS location of crew members and the time at their various jobs in the field and when on the move. The software, which facilitates job scheduling and time tracking by project, proximity, and person by day or week and includes an employee mobile job scheduling app, provides employee



The YARDZ dashboard on desktop, laptop, smartphone and tablet.

Reviews of the YARDZ equipment management solution, Workyard workforce management software, the Fin natural language bot and the Rillavoice sales insights app.

arrival times, departure times, and precise addresses and issues smart alerts to surface potential timecard mistakes.

The employee scheduling app, available to run on iPhone, iPad, and Android, gives dispatchers the ability to immediately notify team members of any new jobs or changes in job schedules as well as check live progress and employee locations. Employee checklists tell each team member what needs to be done where and when. Workers can tag hours to projects and tasks via their phones.

The precision and reliability of the GPS tracking system is leveraged to minimize data input required by the crew in the field, with the capture of site arrival, departure, miles driven, and time per job largely automated, giving the contractor an accounting of every minute worked.

Workyard automatically displays real-time labor costs down to individual tasks by each employee and crews can be organized/segmented with colorlabeled filters for easy accountability.

Approved reporting can be synced to integrate with Quickbooks and other popular payroll processing software.

Pricing: per user, scaled by area code. Free 14-day trial. Workyard also offers free construction templates at www.workyard.com to customize, download, and print, available in PDF, Word, and Google formats. Options include standard contractor agreements, subcontractor agreements, and 1099 contractor agreements and estimate, proposal, bid, quote, invoice, work order, employee schedule, equipment checkout, and punchlist templates.

Fin

Fin (www.intercom.com/fin) is a natural language AI bot powered by a mix of large language models—including OpenAI's GPT-4, a proprietary machine learning technology—to resolve customer questions. Fin can hold complete support conversations with customers in plain English (multilingual capabilities coming soon), providing accurate answers based on a company's existing support content, with no straying off topic.

When Fin does not know the answer, it says, "I don't know" and passes the question off to a member of your human support team, asking clarifying questions before handover. According to the developer, Fin can answer up to 50% of customer queries instantly and accurately.

The bot, for which no set-up is required, instantly learns everything it needs from your existing support articles, providing answers based on your support knowledge base. Fin also links to source materials, enabling customers to dig deeper if desired.

The Fin Conversations Inbox lets you easily monitor all of Fin's responses. You can create custom answers to your most important questions and Fin will prioritize them over its AI answers.

Pricing: 99 cents per resolution (i.e. resolved conversation) plus an active Intercom plan (Starter, Pro, or Premium) scaled by included features. (Intercom is an AI powered automation-first customer service platform that provides a seamless customer experience across automation and human support.) You can sign up for a 14day trial for Fin by visiting Intercom. com and clicking "Get Started" and proceed from there.

Rillavoice

Rillavoice speech analytics software app (www.rillavoice.com) records conversations from tablets, phones, or headsets or face-to-face and transcribes them into text and uses AI to capture insights that can help improve customer service and sales.

The app is designed to enable sales reps to increase conversions of pitches into sales by analyzing which pitches have worked for a company's top performers and then sharing the pitches and techniques with the company's other reps. This capability lets business sales teams members try out several different pitches and, based on the derived analytics, see which works best. Rilla is fully compliant with all audio recording and privacy laws in the US and Europe.

Pricing format: per license per year. G

Patti Feldman writes articles and web content for trade magazines and manufacturers of building products. She can be reached at productpad@yahoo.com.

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tekmar

by Matt Michel MARKETING AUTHORITY

14 Simple Things to Stand Out



ometimes, it is the simple things that cause a company to stand out. Simple things are easy to do, but they are also easy not to do. Here are 14 of them.

1. Be Odor Free

Some customers are extremely sensitive to odors and smells. Others merely do not like them. No matter how early you start, shower in the morning. Use deodorant, but not aftershave. Smokers need to take special care to keep smoke odor off clothes. Everyone should use breath spray, but especially smokers.

2. Be Well Groomed

When you shower, shave. The most common complaint consumers have about field service personnel is poor grooming. Not only should you shave, get your hair cut regularly. People expect professionals to be neat and clean. Look the part.

3. Clean the Truck

A neat, clean truck implies neat, clean service. People assume you will not take care of their homes if you do not take care of your truck. Wash it as needed. When there is the inevitable body damage and dings, fix them sooner.

4. Clean the Work Space

Leave everything you touch inside the customer's home cleaner than you found it. Bring in a battery powered or electric shop vac if needed. Use citrus scented cleaner and use it on all brass and porcelain.

5. Give Customers Choices

People like choices, even if they end up asking you what you would do. Some will seek choices if you do not offer them. They will call your competitor if necessary. The great thing about offering choices is some people will surprise you and select more expensive, more profitable choices. Let people choose between repairs, replacements, or upgrades.



These items are not rocket science, but they are part of the science of service. They are simple and easy to do, but they are also easy not to do.

6. Listen

Listening is an active sport. Pay attention. Nod. Repeat back what the customer told you to ensure you got it. Take notes. Active listening shows respect. It lets people know you consider them important. As a bonus, when you ask questions for clarity, you will learn new information that might lead to bigger sales.

7. Make Eye Contact

Part of listening is eye contact. Everyone has heard someone say, "I won't trust a man who won't look me in the eye." Never mind that the first thing a con-man learns is how to look people in the eye with sincerity, people think you are untrustworthy when you fail

to make eye contact. Look people in the eye.

8. Offer Upfront Pricing

We are long past the debate about whether flat rate or time and materials pricing is better and preferred. Consumers want to know what something costs up front. They hate the uncertainty that comes from open-ended time and materials pricing. Price up front. People think that companies offering flat rate prices are more affordable and honest.

9. Respect People's Space

People have different feelings about personal space. If you pay attention, they will let you know how close they want people to be. Pay attention. Treat people's personal space as sacrosanct.

10. Say Thank You

One of the simplest things in the world is showing genuine appreciation for someone's business. Say thank you. Thank people for trusting you to take care of their plumbing.

11. Smile

You appear friendlier when you smile. Research studies show that people are more likeable when they smile. Do not fake it. Be genuine. Think of genuine reasons to smile and watch your sales increase.

12. Stand Up Straight

Standing up straight is similar to making eye contact. You appear more confident when you stand up straight. Accordingly, you appear more confident.

13. Wear Disposable Gloves and Shoe Covers

Wearing shoe covers when you enter a customer's home and disposable gloves when working on their plumbing is a sign of respect for the home. It also allays fears of consumers living in post-pandemic fear of germs.

14. Wear Uniforms

Uniforms communicate professionalism. Wearing a uniform is not enough. It should look neat. Shirts should be tucked in before walking to the front door. A spare should be kept on the truck for times when the uniform is soiled.

These items are not rocket science, but they are part of the science of service. They are simple and easy to do, but they are also easy not to do.

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by Brigham Dickinson PRESIDENT OF POWER SELLING PROS

Do You Have Something to Give?

usinesses cannot grow unless owners are able to free themselves from the business so they can work on it instead of in it.

What exactly does it mean to free yourself from the business? This is your creation. You are proud and protective of your projects, as you should be. Yet if you are playing the role of CSR, office manager, supply manager, accountant, sales rep, on-field tech, marketing guy... who is left to grow your organization? This is the role you are meant to fill.

Leadership is more than just a title; it's an art that requires constant refinement and dedication. As a leader in the home service industry, you play a pivotal role in shaping the culture of your organization, motivating your team, and guiding them toward success. Inspired by the key principles presented in my upcoming book, Something to Give, this article will delve into the best practices that extraordinary leaders adopt—not just to create a dynamic, thriving work environment, but to be a leader worth following. By mastering these key principles, you can lead your team to achieve extraordinary heights.

Core Principles

To become a leader worth following you must first start by shifting your perspective and begin to formulate new habits. I will take you through the steps of leadership, but first let's take a look at where this all began: *the Pattern for Excellence*.

Over thirteen years ago, I hit rock bottom when my business failed. Sitting alone in my sister's basement, in a desperate moment of despair, I discovered the power of eight timeless principles that I believed lead to success in life:

- Be **Positive** positivity attracts people
- Be *Prepared* preparation inspires confidence
- *Listen* understanding invites connection
- Care empathy validates worth
- Say "yes" reassurance builds trust
- Ask asking encourages action
- Build *Value* value creates commitment



Inspire, empower, succeed: changing your role from owner-operator to owner-leader.

• Be *Grateful* - gratitude reinforces unity

These principles became my lifeline. I want to use this Pattern for Excellence (PFE) as a launching point to guide you through an outline of personal innovations and best practices.

The Foundation

1. Purpose

The true essence of effective leadership can be summed up as, "something to give over something to prove." This principle emphasizes the importance of giving and serving others, rather than solely focusing on proving one's worth or authority.

Leaders who embody this mindset bolster an environment of empowerment. Give your team the tools, support, and ability to trust that they can perform at their best—while you have their backs. By shifting the focus from self-centered goals to the well-being of your team, leaders can create a positive and enduring impact in their organization. They will also cultivate a culture of excellence and unity.

The Pattern for Excellence became the code of conduct for my purpose, which was to be more service-minded. What will your driving purpose be?

2. Pattern

Developing a clear pattern that aligns with your purpose is essential. This pattern involves defining the principles that underpin your leadership habits and actions. A strong pattern serves as a foundation for your leadership journey, inspiring those who follow you to perform at their highest levels. It creates a sense of direction, empowering your team to work cohesively to achieve shared goals.

Sometimes a pattern has obstacles. Sometimes it is your pattern of behavior that holds things back. Through a process of self-reflection you can clear a path, building proactive habits that are adaptable to your ever-shifting needs. As a leader, adhering to your established pattern and making changes when it's needed will keep you on track to achieve your organization's objectives.

In Chapter 3 of Something to Give, I provide an exercise to set up your 20-hour work week by breaking the pattern of working "in" your business rather than "on" your business by delegating. Put simply, a tree without roots cannot grow. A tree needs many roots to support it into being one healthy organism. As you nourish your roots, your tree will blossom, and in turn

provide shade and fruits for your labor—a cycle of success.

Now, I know I didn't invent the concept of "active listening" or "being positive." However, consider this: just because it is common knowledge, does not mean it is common practice. When you dedicate yourself to the heart of these principles, you gain profound insights that elevate your leadership.

The Work

1. Performance

A leader needs to generate emotional engagement from the performance of their own roles and through measuring the performance of their team.

Key Performance Indicators (KPI's) are measurements taken to track the success of an organization. Here are five steps that will elevate the performance of everyone in your organization and build value and loyalty through-out your customer base.

- 1. Have an industry specific coaching company like Power Selling Pros holding your call center reps accountable. This will put your Comfort Advisors and technicians in the best position possible to do the work in a client's home and set your business apart from the competition.
- 2. Join your team out in the field every so often. This is more than a ride-along; you will actively support your team when you work in tandem and lead by example to create an excellent experience for the homeowner.
- 3. Have your executive team members share with you who they feel are key players on the team; individuals they believe, having worked alongside them, show l eadership qualities. This identifies those who are most capable and helps gain more freedom over your time.
- 4. Record your daily tasks and accomplishments. This is a physical visual aid of what you do and allows organization of your time.

➤ Turn to Do You, page 55



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by Andy Tryba co-founder & managing partner of ionic partners and ceo of gigster

6 Ways Contractors Can Implement AI Tools

rtificial Intelligence is all over the headlines recently and while it's frequently utilized in the technology industry that doesn't mean it can't have large impacts for contractors who operate in the physical world.

AI has provided immense value in both the physical and digital worlds when it comes to improving efficiency, project management, and predictive maintenance.

What is Artificial Intelligence?

AI is a form of computer technology that (in certain applications) behaves like a smart assistant, learning and making decisions similar to how humans do.

Imagine having a digital team member who can predict when your machinery might break down based on patterns it sees in your equipment's performance data. Or maybe it's a clever analyst who can sift through all your project data, help manage schedules, order materials, and even provide insights on how to do things more efficiently.

This "smart assistant" can analyze a lot more data and do calculations much quicker than a person could. It can even learn from experience to improve its predictions and recommendations, making AI an invaluable tool for streamlining operations and reducing unexpected complications on site.

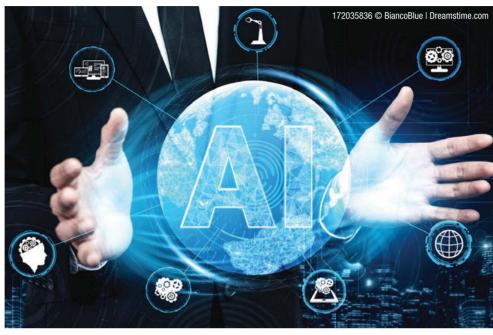
Here are six of the best methods for contractors to leverage AI tools.

1. Predictive Maintenance

Predicting the maintenance requirements of equipment and improving uptime can help save money and increase customer satisfaction. By analyzing data from sensors and past maintenance records, AI can predict when a machine might break down or require servicing, allowing contractors to fix problems before they cause delays. Tools such Augury use AI to predict and prevent machine failure and drive down maintenance and reliability costs.

2. Project Management

Managing anything costs time and



Here are six of the best methods for contractors to leverage Al tools, and key points to consider as you begin implementation.

time is money. Al's profound impact on project management is seen in the automation of managing and documenting tasks, allocating resources and even the prediction of potential project delays. Al tools can also provide insights into efficiency opportunities and help make data-driven decisions.

2. Building Information Modeling (BIM)

Design and construction processes can use AI to optimize BIM. By analyzing a large number of designs, AI can offer optimizations in terms of materials used, cost, time and environmental impact. Tools such as bricsys uses AI to analyze data and remove bottlenecks in the design process by automating repetitive tasks.

3. Supply Chain Management

Supply chain is something that's constantly being optimized using block-chain, machine learning and AI. Integrating AI can better help predict demand, manage inventory and improve logistics. Platforms such as

Project44 and Coupa use AI to optimize various aspects of the supply chain, leading to reduced costs and improved efficiency.

4. Safety and Compliance:

Ensuring a safe working environment is something that's always top of mind. AI monitors compliance and safety standards to make sure qualifications are met by analyzing video feeds and other data. AI then identifies situations where safety regulations are being violated and alerts the relevant personnel. Tools like Newmetrix specialize in this area.

5. Training and Simulation

AI is particularly useful in creating realistic situations for training staff to use complex equipment or follow complex procedures. Tools such as STRIVR specialize in this area.

How to Adopt Al

Ideas are great but the value is in the execution. Here are a few steps you should take when looking to introduce AI into your business:

Identify the Pain Points and Goals

Defining the problem you're trying to solve and goals you plan to achieve will help you narrow down the options to select the most suitable AI tool for your needs.

Evaluate the Available Solutions

Not all AI tools will be equally effective or compatible with your business. It's important to compare the features, benefits, costs and risks of different AI tools with your requirements. Don't forget to consider the ease of use, scalability, integration process and support of the tools.

Implement the AI Tool Gradually

Implementing anything new requires careful planning and execution. Allow adequate time for testing to ensure the AL works well with your

to ensure the AI works well with your existing systems and processes. Train your staff on how to use the AI tool and implement it gradually, starting with a pilot project or a small group of users first. Only expand it to the whole organization once you are satisfied with the results.

Monitor and Evaluate the Performance

After implementing an AI tool, consistently and objectively measure the outcomes and impacts of using the tool against your key performance indicators (KPIs). Collecting feedback from your staff and customers can also be used to identify possible issues or gaps so adjustments can be made as needed.

Consider the Human Element

Good change management practices are key to a successful AI implementation. Help your team prepare for the change by supporting them through comprehensive training.

Andy Tryba is Co-Founder & Managing Partner of Ionic Partners and CEO of Gigster, a software development company that sources developers, designers and product managers from around the world to use artificial intelligence to complete clients' projects. Visit gigster to learn more or connect with him on LinkedIn at https://www.linkedin.com/in/andytryba/.

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by Ralph P. Sita, Jr. CEO AND FOUNDER OF TRAINACE

What Can Contractors Do to Get Paid Faster?

ou've closed the deal, signed the contract, and begun—or even completed—work on that new piece of business. Now comes the fun part: getting paid.

While contractors increasingly are turning to an app or software package to bill customers on-site when a job is complete, invoicing continues to be a major issue for many field service professionals. And let's face it: failure to invoice customers quickly and accurately can significantly impact your bottom line and, ultimately, your ability to stay in business.

Billions Lost

According to research by MarketInvoice, contractors lose approximately \$19 billion annually due to customers paying invoices late, not paying bills at all, and refusing to pay interest or late fees. Obviously, chasing after customers to collect delinquent payments is time-consuming and expensive in terms of time and effort that could be devoted to more profitable pursuits. Late or non-payments also impact cash flow, hurting the contractor's ability to pay workers (or hire new ones) and purchase new equipment. Dun & Bradstreet estimates that 90% of small business failures are caused by poor cash flow.

What can contractors do to get paid faster? The obvious answer is to invoice as soon as the work is done, but there's more to it than that beginning with the terms of the contract the customer signs before work begins. In addition to a quote providing



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Contractors lose billions annually due to customers paying invoices late, not paying bills at all, and refusing to pay interest or late fees.

the customer with an estimate of how much the work will cost, the contract should include:

- Payment terms which specify whether a deposit is due before work begins, how long the customer has until the payments are due, how subsequent payments should be made, and payment plans over time
- Any discounts or incentives which apply for customers who submit payments early
- A late fee policy which spells out whether any late fees or penalties will be due on invoices not paid on time

While these policies are included in the customer contract, contractors should use their invoices to reiterate them and to encourage customers to pay on time (or early). Invoice payment terms, for example, should go beyond specifying how payments should be made to include incentives designed to promote early or on-time payments.

One way to do this is by requiring a deposit before starting work. Doing so helps to ensure that the contractor has a steady cash flow to cover project expenses, which is particularly important on big projects. The cash flow will also help in meeting other business expenses, such as salaries and facility costs.

Payment Terms

Contractors can also encourage immediate payment by altering the standard way payment terms in their invoices are expressed. Typically, contractors use the "Net D" format to convey the number of days from the invoice date until the payment is due. Net 30, for example, means the full amount specified in the invoice is due 30 days from the invoice date. By adding a few numbers, though, the contractor can show discounts available for early payment. An invoice with the payment terms "2.5/10 Net 30" means that the customer will get a 2.5% discount if they pay the total amount within 10 days from the invoice date.

No matter how payments are incentivized, though, some customers inevitably will miss payment deadlines. To ensure minimal conflict with such customers (and get paid), the late fee policy spelled out in the original contract should be reiterated in the payment terms of the invoice. It's also advisable for contractors to discuss this policy directly with customers before starting work to make certain there are no surprises.

Line-Item Description

Beyond invoice payment terms, there are several steps contractors can take to get invoices to customers quickly and (hopefully) speed payment. If a particular project is being billed by the hour, it is important to maintain an accurate record of how many hours have been spent on the work. Regardless of whether this is done by using a work diary, mobile phone, or invoicing software, it is important to clearly and accurately describe when work started and finished, and what tasks were performed. Doing so makes it easier to provide a line-item description of the services rendered in the invoice details. A line-item description also makes it easier for customers to know exactly what they're paying for.

The fastest way to get paid quickly is to send the invoice as soon as the job is completed—or better yet, present it immediately via your mobile device. Providing an invoice on the spot makes it easier for the customer to process since the work is still fresh in everyone's mind. The customer can easily track what is owed, budget to pay for it, and recall other details about the job, such as when they requested it and when it was started.

Bottom line, there are numerous steps contractors can take to make sure accurate invoices are delivered quickly to customers. The pressure is on contractors, though, to make sure those steps are taken. The continued existence of their companies, after all, likely depends on it.

Ralph P. Sita, Jr., CPA is a lifetime successful serial entrepreneur. Prior to co-founding FieldBin he co-founded the online cybersecurity learning platform, Cybrary, with over 3 million users. Sita is also CEO and Founder of Train-ACE, a brick-and-mortar advanced security computer training company. For more information, visit https://www.fieldbin.com/



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Improving Contractors' Lives for the Better.

by Harry Gunsallus Chief Operating Officer for Owners Bank

Small Business Loans: Fact vs. Fiction

inancing a small business can be a tricky, and sometimes the need for a loan comes at a time when your small business's survival and growth depends on it. It's therefore crucial for small business owners to learn about the ins and outs of loan applications and get organized ahead of time, so that when the time comes, you're prepared to put forth the best application possible. There can be a lot of misinformation about what is needed to secure a loan if you're a small business owner, but we've listed some of the most common myths below—and the real truth behind them.

Myth: Your loan application can have a broad scope.

Fact: Technically true, but it's not the best approach.

Having a vague notion of what your small business loan will be used for can sometimes work, the vast majority of loans require you to have a stated purpose that the loan will be used for. Financial institutions have the ability to require full repayment if a loan isn't used for what is stated in

the application. The purpose can also help you deter mine the right kind of financing to apply for—for example, a long-term loan with a fixed rate may be



There can be a lot of misinformation about what is needed to secure a loan if you're a small business owner.

better for businesses in the midst of expansive growth, but opening a credit card may make more sense for everyday purchases.

Myth: Applying for a loan doesn't require much prep work.

Fact: It very much does!

Being prepared and organized ahead of time is the best thing you can do to ensure the success of your loan application. There are many documents you'll need to gather, including your tax returns (for many banks this means at least two fiscal years), articles of incorporation, trade name association, and DBA (doing business as) paperwork.

It's also crucial to ensure any ownership issues are clarified and documented before applying. This is particularly important for small businesses with multiple owners, such as LLCs, and includes formalized documentation outlining who has ownership of the company and its assets.

Myth: It's a small business loan, so your personal financial position isn't a factor.

Fact: Everything about your small business, including your personal financial situation, is relevant during the loan process.

If you are the sole proprietor of your business, financial institutions will treat you as an individual applying for a loan—even if you apply on behalf of your

business. In addition, even if you are not the sole proprietor, as an applicant you will need to sign a personal guarantee. This holds you accountable for the loan, even if the business fails.

What all of this means is that your personal finances can have a big impact on your ability to secure a loan or other financing for your small business. Make sure you research your credit score, as well as your debt-to-income ratio and your loan-to-value ratio (LTV), ahead of applying for any financing. Credit scores are easy to access for free, and there are online tools available to help you calculate debt-to-income and LTV.

Myth: When it comes to small businesses, every bank is the same.

Fact: Every small business is different, and deserves a financial partner that understands their unique needs.

Take the time to research the different institutions you're considering part-

nering with, including what their rates and policies are. A little extra research can go a long way to ensuring your bank is an actual partner who understands your business's needs. For example, if your business's hours and/or your schedule mean it's difficult for you to go to a brick-and-mortar location, a bank that requires you to be physically present for a loan application is probably not for you. Similarly, it's best for small business owners to steer clear of banks that are not transparent about their fees and rates—by not seeing these numbers upfront, you could end up being charged unexpectedly for things like application fees or other unnecessary costs.

Now that you've taken a look at the truth behind the most frequently heard myths related to small business loans, you'll be better prepared to help your business succeed and secure the financing you need, when you need it.

Harry Gunsallus (hgunsallus@liberty-bank.com) serves as the Chief Operating Officer for Owners Bank. He oversees digital strategy, builds and maintains Fintech partnerships and develops an integrated and compelling suite of products and services to support Owners Bank. He is a leading subject matter expert in helping financial institutions grow through innovation and has held other senior IT, operations, innovation and product development positions throughout his distinguished career in the financial services industry.

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Do You Have Something to Give?

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5. Now it's time to work on your business. Major indicators such as financing, service agreements, and online reviews are worth consideration as you begin to delve deeper. Business owners tend to get what they focus on; where attention goes, results will follow.

When we talk about winning the moment, we have to be able to perform when we are presently in that moment. In cultivating a mindset rooted in the Pattern for Excellence, you create a nurturing space where every individual can continue to learn and feel a sense of harmony. As a true representative of this pattern, your performance sets a compelling example for others to follow, inspiring them to adopt the same principles and values.

2. Preparation

Leaders who are worth following are always preparing and leveling up their "game" to increase their performance to strengthen the spirits, bodies, and minds of those they're accountable for. The essentials of preparation starts with typical day-to-day work; training, operating procedures, answering questions, providing feedback, and so on. But that is just scratching the surface.

Daily improvement must be allotted its importance in your everyday life. Being prepared means facing honesty, paying attention, building good habits, and thinking ahead. A quote from H. Jackson Brown, Jr. in The Complete Life's Little Instruction Book® states: "The best preparation for tomorrow is doing your best today."

3. Persistence

At age 19, I had an opportunity to partake in a mission trip in Brazil. I did my best to learn Portuguese, yet upon arrivaI, could have sworn I had learned the wrong language. I understood nothing. As a people-person eager to communicate, I was plunged into a state of panic. There was a light at the end of the tunnel (though I didn't know it yet).

During this mission trip, I was given a challenge to memorize several [long] lessons in Portuguese. No easy task, but the challenge gave me purpose. And with purpose came persistence. I wanted to succeed. Perseverance left no room for self-pity or self-doubt to contaminate my thoughts. By the end of the challenge, I was one of only three individuals to complete it.

for Excellence in your business; what does that future look like? What are you excited about as you lead yourself and your team to new heights? Freeing yourself from the unnecessary to do what is necessary is a key to victory.

Money and time offer stability—but they do not buy happiness.

By leading with optimism, you are laying the groundwork for principles like gratitude, positivity, and empathy. This drives persistence. Something we commonly see in employees is the feeling of being "overworked and underpaid." When you persist, you commit to a goal. Your goal will be achieved through dedication to the people around you. If the individuals in your office feel like they matter, they too will be persistent in achieving more with you at their side.

4. Patience

Great things rarely happen overnight. We as people are often impatient; so much so that we lose the momentum to carry us to the end of a project. In fact, sometimes it doesn't even make it to the "project" stage and remains an idea, before dwindling out. We give up before we get there.

Here's some irony for you: it takes time to learn patience. However, if you have the patience to do the work the Pattern for Excellence requires—and the patience with your people as they learn it, too—it will bring you more fulfilling and more lasting results.

To reach a point of sustained momentum won't be easy. Hard work will require compromise and sacrifice. You have the capacity to weigh the pros and cons in your mind; if the sacrifice is worth it, you will choose to pay the price—especially if you want something badly enough. Be patient with the process and patient in your development to receive a greater reward.

Tying it Together

Money and time offer stability—but they do not buy happiness. Happiness comes with service to others and service to self. Find a place for the Pattern Being an exceptional leader in the home service industry requires a combination of vision, emotional intelligence, communication, empowerment, and adaptability. Your service mindedness can ignite the spark that propels a company. I look forward to how you embrace these practices to shape your path and inspire your team. Remember that leadership is an ongoing journey of learning and self-improvement, and your commitment to the Pattern for Excellence will create a lasting impact on everything you do.

Brigham Dickinson is president of Power Selling Pros and founder of the Power Certification Program, a call-handling training program that holds teams accountable to booking calls and creating Wow! experiences over the phone. The program guarantees that contractor call-handling teams will book at least 85 percent of their calls and wow more customers.



Women, Representation, and the Future of the Skilled Trades

➤ Continued from page 26

start local. Change starts in your own community, your own backyard. That means reading to school districts here in Cleveland, Ohio. Reading to my own hometown school where I live, putting books into little libraries throughout the city. My kids laugh because I always have a pack of books in the back of the car and I will pull over anywhere and go run and put a book into a little library. But it's those small steps, and if we continue to build out the ambassador group of The House That She Built, that will make a huge impact for the trade and the industry and for many women to come.



A House That She Built book reading conducted at Cleveland Metro Schools.

CONTRACTOR: The project had its origins in the Utah and the NAHB Women's professional organization out there. Both volunteers and paid workers came from all over to participate in the project, correct?

Lehtinen: That is correct, yes. And they are looking to do more of these builds throughout the country and utilizing The House That She Built to help promote and showcase those builds.

I sit on The House That She Built Leadership Council. It's made up of all women in different disciplines, and Oatey is one of their ambassadors for the plumbing trade. We work with them on the curriculum and training materials, with the goal of introducing



Some of the skilled tradespeople who worked on the original House that She Built in Saratoga Springs, Utah.

'I really want to encourage other brands in this space to get involved."

girls and young adults to the trades.

The Leadership Council really helps give this global view of how we want to continue to grow and what we need to do to drive impact. One of those programs is the ambassador program, and this is really where anyone can participate. And it's signing up and taking that initiative of, I'm going to read this in my community, or I'm going to take this to my school.

We did a giveaway on social media a month ago where we were giving a case—which is 25 books—to four schools around the country. One of the schools that was the lucky winner is now putting the book in their curriculum. Just that small investment drove change in Vermont.

CONTRACTOR: Are there any other projects that the Women Resource Network or The House That She Built organization have planned for the future?

Lehtinen: There are a few things I'll touch on for you. The Women's Resource Group also does things outside of

even The House That She Built, and one of the things that they're working on from now until the end of the year is the I am Remarkable program. It's a women's empowerment workshop encouraging women to highlight their successes and be supportive of the things that they've been able to accomplish.

The House That She Built has started a Girl Scouts patch program. And we're running an event here in the Cleveland market this fall. We are renovating a team room at a women's safe location here in Cleveland. Also, we are sponsoring and supporting American Heart Association STEM event here in Cleveland at one of our children's science museums. We are really looking for ways that we can drive change and impact in our local community.

We're trying to get a bit out of the Cleveland area. Oatey is going to be a sponsor at the Big Build, which happens at the National Building Museum this October. It is a great event trying to bring awareness to all the elements



Two women drywallers who helped in the construction of the original House That She Built.

of the built environment. It gives kids hands-on experiences. For our event, they'll be able to put together and build all of these tubular pieces to create their own plumbing masterpiece. The National Building Museum predicts close to 5,000 kids will come through. It's a partnership Oatey is really excited about.

CONTRACTOR: Is there anything more that you want people to know, either about the Women's Resource Network or about The House that She Built?

Lehtinen: My message in all of this is that we need everyone to participate. Including all the brands that are similar to Oatey in the trades. This is something that I feel that every organization should be supporting, talking about and helping with: activating how we get more people into the trade, how we promote and change that stigma against the plumbing trade. How do we get in into our schools, talk to our guidance counselors? Because if we all unify, we could really drive amazing change. Those of us who are close to this trade understand what an awesome, amazing, field it is to be in, as well has how important it is for our country and communities. I really want to encourage other brands and organizations in this space to get involved. It's going to take all of us to make a change.

Oatey Co. will be an exhibitor and sponsor at PHCC Connect 2023, which will be held Oct. 25-27 in the company's hometown of Cleveland, OH.



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From Past to Present: Moving Water Quality Forward

➤ Continued from page 6

developments at WQA over the last five years.

We put a premium on professional certification, a voluntary credentialing process that demonstrates a commitment to high professional standards, growing expertise and improving customer service. Courses are offered in on-demand modules through our website or through our latest innovation, live instructor-led training sessions taught via Zoom. The enrollment in the instructor-led training sessions has been phenomenal. Continuing education is offered on our website, in webinars or in live Convention education sessions.

CONTRACTOR: Your father also served as WQA president. What did you learn from him? Any advice you can share with us?

Moore: The most important thing I learned from my father, Jamie Wakem, was the importance of volunteerism, as well as mentorship. I have grown up with a lifelong mentor when so many young people in our industry don't have one (yet). Interestingly, during Jamie's tenure as WQA president and those years, the industry was going thru its own different set of



growing pains. There were discussions about regulating contaminants (DBPs), licensing, ethics—so many of the same conversations we have now.

The decade was different but the challenges for our industry have remained fairly consistent over time. One of the most important tools to have is the ability to look back at history and learn from it. However, we can't stay in the past. If we don't want to repeat history, we need to take that vision, grow and evolve. One of the things I respect most about A. O. Smith is its recognition of history and the never-ending desire to continue to improve as it pertains to both professionalism in the water quality industry and with new technology developments.

CONTRACTOR: Do you consider yourself a mentor for those young women starting their careers (hopefully into our industry).

Moore: I do enjoy being a mentor. I also hope to be a role model as it pertains to women serving in leadership roles in the water treatment industry. I have always felt that women have the potential to better understand and represent the value of quality safe drinking water than anyone in the industry. As a mother, the most important thing to me is giving my daughters the very best life. I am thrilled to work in an industry with a direct line to providing that better life. I am the second female President of the Water Quality Association, and I guarantee you that I will not be the last. We have a lot of young fantastic women in this industry.

CONTRACTOR: I heard you on a recent podcast saying that ethics plays a big role in water quality. Please explain.

Moore: This industry has transformed in the last decade. Due to our technologies and capabilities, we are

now addressing health issues directly and installing products that are solutions to known health contaminants. Today's consumer is educated and some know what questions to ask before ever contacting a water treatment professional. If they are not, they want to become educated. We have a responsibility to discuss technologies based on fact, science and when available, certified performance. When we install a water treatment device, we need to do it properly and then provide ongoing maintenance as needed on the device so that it can continue to perform as designed. We have the technologies available now to make water healthier and safer. As an industry, if we are going to say that, then we absolutely must ensure we are doing it.

CONTRACTOR: Finally, talk about the importance of collaboration with other entities (assocs., mfrs., etc.) to reach common goals?

Moore: One recent example of this collaboration was when WQA and Texas Water Quality Association members worked together to convince the Houston City Council (the nation's fourth-largest city) to remove a long-standing code provision requiring a redundant double-check valve assembly for residential water softeners. My favorite word is collaboration and when groups can band together to reach a common goal that is beneficial to the end user, I am all for it.

Forever chemicals have changed the face of the industry. The EPA's recent declaration of intent to set a maximum contaminant level has brought the WQA together with other water-based associations like the National Ground Water Association. This year, WQA leaders attended an event in Washington DC to help educate representatives on capabilities in our respective spaces and the benefits of working together. The answer to forever chemicals does not lie in a single sector. Success will be the result of collaboration.

As **Henry Ford** once said, "If everyone is moving forward together, then success takes care of itself."

RectorSeal Announces New Rep Territories

HOUSTON, TX — RectorSeal LLC, a leading manufacturer of quality HVAC/R and plumbing products, announces new territory coverage for several manufacturer's representative companies. The changes support RectorSeal's vision to provide a single, industry-leading customer experience with a unified factory direct and manufacturer representative support function.

• Pacific Product Sales (PPS) will support the complete offering of RectorSeal and Shoemaker product lines in Alaska, Idaho, Montana, Oregon, and Washington. PPS has been supporting the HVAC/R industry



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in the Pacific Northwest since 1987. PPS recently merged with Cascade Sales, Inc..

• MJM Associates, Inc. coverage will include Colorado, Utah, and Wyoming for the full line of RectorSeal and Shoemaker products. The company represents superior manufacturers to the HVAC/R and Plumbing industries and offers sales support, product training, application assistance,

and technical support to wholesale distributors, engineers, and contractors.

• Wright Sales Company will cover Hawaii, Arizona, California, Nevada, New Mexico, and El Paso, TX, offering the full line of RectorSeal and Shoemaker products. Since 1991, the company has emphasized a pull-through approach to the marketing and selling of HVAC/R products. The company enjoys long-term relationships with customers and manufacturers through digital communication.

Visit www.rectorseal.com for additional details.

Learn, connect, & level up at the event for HVACR





Corrosion Proves a Hydronic System Killer

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when a system isn't properly serviced.

The 58,000 square-foot building dates back to the 1800s and has seen its share of renovations and updates. The building includes commercial and residential units, and the closed-loop heating system worked well for a long time.

But over time, problems started to emerge. "The issue we experienced was that in the closed loop system we found debris, sediment and corrosion from inside the pipe," according to the property manager for the building. "So much sediment had gone through the system that every heat loop was cracked and showing signs of wear."

The solution required a comprehensive system evaluation and eventually, boiler replacement. The path to getting there, however, proved as murky as the sky during a New England nor'easter.

System Analysis

The use of mixed metals, limited passivation—a chemical treatment that enhances the ability of treated surfaces to resist corrosion—and lack of timely maintenance had resulted in the development of black oxide. The particles deposit at heat transfer surfaces and clog narrow passes in unit heater, fan coils and cooling and heating coils in air handling units.

The pH level of the water can also decrease (lowered pH can indicate bacterial growth or a system leak). Closed circuit systems require control of the water's chemistry to prevent corrosion and freezing. Water treatment chemicals can help prevent corrosion and keep the system humming.

The Portland building included four boilers that provided hot water to the loop during the winter and a chiller that provided cool air during summer months. Contractors found the boilers in the single-pipe system started to trip and explored causes for the failures.

"We discovered it was likely settling in the lines," the property manager said. "The contractor on the project flushed the line to get the sediment out. That was the first step, but it got to a point where there was so just so much sediment still getting through the line, and it was not being



Mineral deposits, scale and corrosion on the plate of a heat exchanger.



One of the Elite boilers with its service cover off.

more extensive solution was required.

"We looked at the cost difference between disassembling the boiler heat exchangers and the other work that was required for the scope of this project," the manager said. "We got an idea of what it would cost, and it just made sense to replace the boilers for what was ultimately the same price."

In With the New

The solution included the installation of four HTP Elite XL boilers that deliver 2 million BTUs. The boilers were stacked in a tight mechanical room footprint, and side panels allow for easy access for critical maintenance.

The Elite XL model, which is available in seven sizes, includes a 4-pass 316L stainless steel ASME heat exchanger and three-pump control for the system, boiler and direct hot water. Up to 8 Elite XL boilers can be cascaded

to improve the filtration system to help mitigate any issues that might develop with sediment.

"Each boiler has a filtration vessel that helps catch smaller and larger parts of sediment," the property manager said. "We increased our water treatment schedule and the frequency at which we're doing it. We also increased our levels of monitoring. It's a matter of being more proactive about the condition of the water. We now have redundant filtration systems in place to catch sediment before it goes through to our boilers."

A water treatment program to help reach proper pH levels will also help ensure increased system longevity. Treatment should be part of any maintenance plan.

"The boilers were installed and put back on the loop," the property manager said. "We have since switched it to cooling. We were checking some filters on a daily basis, and we would check the filter vessels on each boiler on a weekly basis. Then we went to every other week. Now, we just kind of do it on a monthly basis because the water coming through our filters have been running clean."

Age-Old Problems

The property had been built more than 150 years ago, and renovations and updates had been made over time. But closed loop systems can decay rapidly if they are not properly serviced. It is hard to determine the age of the system in the building, but sediment buildup is the enemy for any closed loop system. "A lot of the sediment buildup and the filtration was basically a function of being a very old building," the property manager said.

The lesson is a familiar one for any plumbing and heating contractor. Maintenance is often overlooked by building owners. In this instance, the age of the building was a factor in the decline of the system. Whether the system was installed decades ago or within the past few years, it is wise to invest time and resources for maintenance. The consequences for not doing so are usually dire—and expensive to remedy.

Commercial property owner finds delayed maintenance requires costly solution.

caught in any sort of filtering. We had to basically shut the system off."

Boiler Breakdown

In some situations, flushing the lines will often solve issues with corrosion and buildup within the system. Flushing is the least costly and fastest solution. This project, however, required more extensive repair. Teams working on the project considered replacing the heat exchangers, but determined a

in a system, providing a much larger turndown ratio, increasing overall system efficiency and unit runtime rotation that eliminates downtime. The contractor worked with **Tom Protasewich** of Emerson Swan to help design the solution.

In terms of capacity, the new system was virtually a carbon copy of the one that had deteriorated. Installation required about two weeks.

In addition, contractors also looked



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DOL Announces Final Rule to Modernize Davis-Bacon Act

Continued from page 1

industry and labor stakeholders that helped inform the regulatory updates. The updates are the most comprehensive in decades.

Reflecting the Modern Economy

The final rule provides greater clarity and enhances the DBRA regulations' effectiveness in the modern economy. These updates strengthen and streamline the process for setting and enforcing wage rates on federally funded construction projects to make sure that federal government infrastructure investments are also investments in US workers.

"Modernizing the Davis-Bacon and Related Acts is key to making sure that the jobs being created under the Biden-Harris administration's Investing in America agenda are good jobs, and that workers get the fair wages and benefits they deserve on federally funded constructions projects across the nation," said Acting Secretary of Labor **Julie Su**. "

Regulatory Changes

The final rule's regulatory changes improve the department's ability to administer and enforce DBRA labor standards more effectively and efficiently. These changes include the following:

- Creating new efficiencies in the prevailing wage update system and making sure prevailing wage rates keep up with actual wages which, over time, would mean higher wages for workers.
- Returning to the definition of "prevailing wage" used from 1935 to 1983 to ensure prevailing wages reflect actual wages paid to workers in the local community.
- Periodically updating prevailing wage rates to address out-of-date wage determinations.
- Providing broader authority to adopt state or local wage determinations when certain criteria are met.
- Issuing supplemental rates for key job classifications when no survey data exists.
- Updating the regulatory language

to better reflect modern construction practices.

 Strengthening worker protections and enforcement, including debarment and anti-retaliation provisions.

Infrastructure Investment

The DBRA requirements apply to an estimated tens of billions of dollars in federal and federally assisted construction spending each year and provide minimum wage rates for hundreds of thousands of US construction workers. The department expects a significant increase in the numbers of industry workers due to the historic investments in federally funded construction projects made possible by legislation such as the Infrastructure Investment and Jobs Act.

our members from wage theft and bad actors. The new rulemaking from the Department of Labor is the most significant update to protect prevailing wage in generations," said McManus.

Associated Builders and Contractors

Associated Builders and Contractors issued a statement strongly opposing the changes.

"This is yet another Biden administration handout to organized labor on the backs of taxpayers, small businesses and the free market," said ABC Vice President of Regulatory, Labor and State Affairs **Ben Brubeck**. "Unfortunately, the DOL's final rule disregards the feedback of ABC contractors, construction industry stakeholders and thousands of small businesses urging the withdrawal

Aided by labor and industry stakeholders' comments, the rule will provide the most comprehensive updates in 40 years.

New federal investments will support projects related to clean energy, power and water infrastructure improvements, legacy pollution remediation, and renovation to the nation's broadband and transportation infrastructures.

The DBRA's purpose is to ensure employers on federally funded or assisted construction projects pay locally prevailing wages to construction workers and to prevent the unintended consequence of depressing workers' wages during the government's construction contracting activity.

Industry Reactions

United Association

United Association of Union Plumbers and Pipefitters (UA) General President **Mark McManus** praised the final Davis-Bacon rulemaking as a monumental victory for workers everywhere.

"This long-awaited update to the federal Davis-Bacon rule is a historic step forwards for working families like ours. Since 1931, Davis-Bacon protections have guaranteed fair wages for an honest days' work—protecting

of this unnecessary, costly and burdensome regulation. Instead, the DOL is moving forward with dramatic changes to prevailing wage regulations, reversing much-needed reforms that were established nearly 40 years ago, and unlawfully increasing the regulatory burden on small businesses, new industries and public works projects.

"With this final rule, the DOL has abandoned any possibility of instituting commonsense reforms to Davis-Bacon regulations to ensure accurate and prompt prevailing wage determinations while providing the regulated community with the clarity needed to deliver high-quality projects at an affordable cost to taxpayers... ABC will now be forced to take appropriate legal action to address the numerous illegal provisions of the final rule and protect our members, and ultimately hard-working taxpayers, from the harmful impacts of this regulation."

ABC submitted nearly 70 pages of comments on the DOL's proposed rule and its more than 50 significant changes, urging the DOL to withdraw the proposal.

Associated General Contractors of America

The Associated General Contractors of America's chief executive officer, **Stephen E. Sandherr**, issued the following statement in reaction to the emerging details of the final rule:

"With an over 800-page rulemaking, where AGC is cited over 60 times, there is a lot to analyze to get a solid understanding of the full impact such a massive rulemaking will have on the federal construction market. A preliminary analysis shows that while more work will be covered, this rulemaking critically missed an opportunity to improve the wage determination process. The 40-year awaited update reverts to the pre-1983 methodology for determining whether a wage rate is prevailing, also referred to as the '30 percent rule.' Just as proposed, this final rule appears to make it easier on the Department of Labor (DOL) itself to set prevailing wages with less of the data it already collects, or lack thereof.

"AGC holds that the DOL's almost exclusive reliance on voluntary surveys to produce and update wage determinations has created a compensation system for Davis-Bacon covered construction that poorly reflects the construction labor market in many parts of the country. AGC recommended the DOL should instead focus on how to collect more accurate data, instead of being able to rely on less, or even at times inappropriate data, to determine wages that are truly prevailing."

Next Steps

The final rule will be effective 60 days after its publication in the Federal Register. Learn more about the final rule by visiting www.dol.gov/agencies/whd/government-contracts/construction/rule making-davis-bacon.

Learn more about DBRA worker protections or the Wage and Hour Division by visiting the Department of Labor web site at www.dol.gov or call toll-free 1-866-4US-WAGE to speak directly and confidentially to a trained Wage and Hour Division professional. The division protects workers regardless of where they are from and can communicate in more than 200 languages.

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PMI to Explore Industry's Potential at PMI23 in Seattle

➤ Continued from page 3

of NASA's Jet Propulsion Laboratory's Planetary Protection Group, "Dr. Moo" will challenge PMI23 attendees to pursue their dreams and reach their true personal potential.

PMI Women's Breakfast featuring Andrea Quinn

A new addition to the conference this year will be the Women's Breakfast, with featured speaker **Andrea Quinn**. After Quinn was taken out of work one day on a stretcher, she decided to profoundly change her life. Brought to the brink by overworking and by trying to meet unrealistic expectations, she became a life coach to help women achieve an empowering work/life

balance. Quinn's remarks during the PMI Women's Breakfast: "Essential Empowerment Curriculum for Women" will serve as a guide to achieving respect

the New World of Business" keynote to all attendees. Her address will provide advice on how to navigate a changing business landscape by implementing

The PMI23 Manufacturing Success Conference, to be held Oct. 23-26 will explore how the industry can contribute to solving water-related challenges worldwide.

and career success while remaining true to personal values.

After the breakfast, Quinn will deliver the "Tools to Reinvent Yourself in

personal development and self-accountability. She will facilitate discussions about how to accept and be open to change, how to make empowering personal and professional choices, and how to build community.

Early birds will reap the benefits of PMI23

Starting on the morning of the first day of PMI23, the PMI Inspiring Leaders Program will cultivate the creative, leadership and team-building skills of those who arrive a little early to PMI23. Working closely with a group of plumbing manufacturing professionals in a setting that inspires—Seattle's Museum of Flight—program facilitator Nicole Bianchi will explore how to be intentional as leaders and clear on leadership philosophy and how to set expectations, build relationships that are clear and kind, and have conversations that matter.

Her goal will be to help participants build working relationships of accountability and engagement that increase productivity and results. This exciting pre-conference program on Oct. 23 is open to all employees of PMI member companies, no matter their position or experience level.

Expert presenters cover the gamut of industry issues

Expert presenters will deliver crucial insights during an extraordinary program designed to fuel professional development. Topics to be addressed: artificial intelligence, extended producer responsibility, green building, international perspectives, legislative and regulatory developments, the manufacturing economy, market outlook, PFAS, the skilled labor gap, sustainability, trade, water management, WaterSense and more. In addition, PMI's 2024 leaders and 2023 award winners will be introduced during PMI's 69th Annual Meeting of the Membership on Oct. 25.

See the entire PMI23 schedule by visiting www.safeplumbing.org/events/calendar/event/scheduled-activities/pmi23-manufacturing-success-conference. Register at www.safeplumbing.org/events/calendar/event/pmi23-manufacturing-success-conference.

To learn more about Plumbing Manufacturers International, visit safeplumbing.org.

RIDGID Marks its 100th Anniversary

ELYRIA, OHIO — RIDGID®, a part of Emerson's professional tools portfolio, is celebrating a major milestone this year: 100 years of designing and building innovative tools. On Saturday, July 29, the company commemorated the occasion by inviting employees past and present, along with their families, to an open house event filled with food, music, entertainment, activities, plant tours, and more. Nearly 1,000 employees, retirees, and their family members attended the festivities.

"All year we have been celebrating our anniversary alongside our customers and tradespeople around the world," said **Craig Sumner**, president, professional tools for Emerson. "Bringing the celebration home to our Elyria headquarters was a great way for us to gather with the people who made our 100 year milestone possible: our employees, retirees, and their families. These are the people who built and continue to build the products that set us apart."

The festivities included a beer tent where adult guests could sample "RIDGID Wrenched 100 IPA," a specialty beer developed in collaboration with Unplugged Brewing Company in Elyria. Families spent the day playing carnival games, inflatable darts, inflatable golf and taking rides on giant



Employees past and present gather for the celebration at the RIDGID headquarters in Elyria, OH.



trikes while listening to live music. A highlight of the open house included plant tours, where attendees learned about the company's plans for expansion and their continued commitment to growth.

"We made this a family affair because we wanted to treat our employees and retirees to a full day of fun and celebration," said **Jordan Weber**, employee engagement manager for RIDGID. "Hearing about their experiences over the years was an important way to recognize how far we've come throughout our 100 years in business."

RIDGID has had a manufacturing presence in Ohio since the company was founded in 1923. The 27-acre complex in Elyria is the world headquarters for the brand's operation and considered a hub for innovation with a recently renovated state-of-the-art shipping and receiving area that helps the company deliver products faster and more efficiently. Over the next several years, the company has plans for additional investments in the area, transforming the southeast corner of Elyria into a vertically integrated, automated manufacturing center of excellence.

To learn more about RIDGID, visit *RIDGID.com*. **G**



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➤ Continued from page 30

at two local high schools, overseeing students' learning process of plumbing installation," Scott Hobbs says.

He explains, "Trade education is the legacy we will leave on our industry when we finish our careers. Pam's previous career was in corporate training. She has developed an in-house training program that allows us to recruit a person with the right interpersonal skills and mechanical ability. Within a reasonable amount of time, they can perform plumbing tasks independently."

Nearly three-quarters of Mr. Rooter Plumbing of NW Florida's booked calls are repeat customers.

"On numerous occasions, we offer plumbing at a significantly reduced cost or no cost for customers having difficult times: grandmothers raising grandchildren, death of major household financial contributors, and loss of income due to health concerns," Scott Hobbs notes. "Our employees share in completing work for our charities, donating their time and skills at no cost to customer or company."

After a devastating hurricane, the couple and their employees endured hardship and loss. On Oct. 10, 2018, Hurricane Michael, a Category 5 hurricane, made landfall near Panama City, FL—bringing catastrophic damage to the Mr. Rooter franchise's service territory.

"The first order of business was getting our employee's homes in order before we could help anyone else," Scott Hobbs recalls. "We continued to pay our team until we started back to work. We separated the work be-

tween repairing our shop and taking teams to our employees' homes to repair and clean up their residences."

Ten employees lost everything. The Hobbs' ensured everyone had a place to live, even buying RVs for four families until homes could be provided.

"Our Mr. Rooter families across



Mr. Rooter Plumbing of NW Florida works with six community groups. Pictured are some of the thank-you posters the company has received from its young visitors.

the nation were a major contributor to helping us get back on our feet," he says. "They provided the supplies that helped us open a store (all items free) for our employees to get their much-needed necessities to survive. Our employees unanimously voted that the money donated by the other Mr. Rooter families would be given to the families that lost everything."

Hobbs and his employees spent the next year working for the company's Advantage Plan and repeat customers, putting new customers on a waiting list and getting to them as they could.

"Our employees maintain that above-and-beyond attitude every day," he says.

Kelly Faloon is a contributing writer to CONTRACTOR magazine and principal of Faloon Editorial Services.

The former editor of Plumbing & Mechanical magazine, she has nearly 35 years of experience in B2B publishing, with 25 of those years writing about the plumbing, heating, cooling and piping industry. Faloon is a journalism graduate of Michigan State University. You can reach her at kelly@falooneditorialservices.com.



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VISUAL INDICATOR PRESS

RING from Merit Brass make it easy for the installer to identify any unpressed joints in the system. Each press fitting and valve up to 2" has a VIPR that mirrors the sealing element and ensures proper installation. The ring can be easily removed after the fitting has been pressed.

Merit Brass WWW.MERITBRASS.COM

RUE BLUE BATH WASTE KITS

are now available in an on-trend champagne bronze finish, adding to its line of designer

finishes-matte black, chrome white, brushed nickel.

oil-rubbed

bronze,



and brushed gold. The finish allows installers to add a traditional touch to any bathroom, while it also pairs well with many different finishes. The line is made with integrated locking features that reduce the number of tools needed.

Oatey Co WWW.OATEY.COM/PRODUCTS/

APOLLOPRESS MODEL 102T-PR CLASS 125 GATE VALVE is cast.

machined, assembled and tested with proven ASTM-quality material. The

gate valve can reliably be installed in most plumbing and heating systems or building service piping and OEM applications. Not intended for potable water. Features include lead before press technology.

Apollo Valves WWW.AALBERTS-IPS.US

THE CIA SINGLE-HANDLE

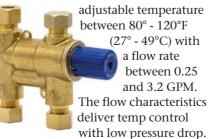
BATHROOM FAUCET with

MotionSense WaveTM combines modern style and technology. Turn your water on and off with a wave of your hand to make your handwashing and bathroom routines more convenient and cleanly. A wide range of finish choices offers options to blend seamlessly with any décor.

Moen WWW.MOEN.COM

THE T-47NL UNDERSINK THERMOSTATIC MIXING VALVE

sustains and limits hot water to an



Legend Valve WWW.LEGENDVALVE.COM

THE VOLTEX 120V HEAT PUMP WATER HEATER from A. O. Smith is

specifically designed to meet the demands of gas replacements, offering an easy 120V installation that plugs into a standard electrical outlet. Top water connections and a zero-clearance design support an easy installation for contractors and allow for the unit to be installed in a variety of applications. Whisperquiet operation that eliminates the need for vibration isolation accessories.



A. O. Smith WWW.HOTWATER.COM/PRODUCTS

LIGHT COMMERCIAL ECM

PUMPS (1911ecm and 1915ecm) offer simple yet versatile control options on both circulators: constant pressure, constant speed, proportional

pressure, 0-10Vdc and parallel pump alternation. The 1911ecm is a 425 W, self-sensing, close-coupled, mechanically sealed pump that features a highefficiency volute, ECM

motor and an integrated frequency drive. It provides a maximum 50' of head and 105 GPM.

Taco Comfort Solutions WWW.TACOCOMFORT.COM

THE SHARK GRINDER PUMP is

a cast iron grinder series for difficult residential applications where ejectors

struggle. The pump is available in three different horsepower capacities (1/2, 3/4 and 1HP), enabling you to match the power output to the application's requirements. A stainless steel cutter and plate allows it

to cut through challenging materials. Zoeller

WWW.ZOELLERPUMPS.COM

THE TENET SHOWER COLUMN

from Pfister sits tightly flush, a feat of inner engineering that allows for crisp lines and a tidy footprint. It meets or

exceeds EPA WaterSense standards. Can be installed in existing shower without replacing a valve or trim. Includes diverter integrated into handheld shower, allowing easy transition



between showerhead and handheld shower

Pfister Faucets

WWW.PFISTERFAUCETS.COM



MODEL 441-10A EMERGENCY SUMP PUMP SYSTEM takes over

when the power goes out. Operating from the power of a 12 volt deep cycle battery, the 441-10A features an efficient 12 volt pump, 1½" back-up connection tee, primary pump check valve, and a provided slip coupler.

Liberty Pumps

WWW.LIBERTYPUMPS.COM

NHW-A NONCONDENSING **TANKLESS WATER HEATERS from**

Navien features ComfortFlow technology, which includes a built-in recirculation pump and buffer tank. It means faster hot water (even at very low flow rates) and no more cold water



sandwiches. The recirculation system allows for internal or external recirculation.

Navien

WWW.NAVIENINC.COM

MART 50-GALLON TALL **ELECTRIC WATER HEATER** holds

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quickly increase water temperature when needed.

WWW.GEAPPLIANCES.COM/APPLIANCE/



THE SANICOM 2 HEAVY-DUTY, **DUPLEX DRAIN PUMP** has two, 2-HP,

220-volt motors for handling multiple commercial fixtures that must process large volumes of high-temperature water, grease or chemicals. The pump can move up to 140 gallons of fluid per minute, with both pumps activating when the incoming flow rate exceeds that of a single pump.

Saniflo USA

WWW.SANIFLO.COM

THE ANTONI PULL-DOWN **SPRING KITCHEN FAUCET** from

Delta (pictured in matte black)



Delta Faucet Co. WWW.DELTAFAUCET.COM



BENCHPRESSG CARBON-STEEL

FITTINGS from Nibco now includes 2" sizes, bringing press technology to fuel and gas carbon-steel pipe applications. Allowing for fast and economical installation of residential, commercial and industrial carbon-steel piping systems, they give users consistent joint integrity and a professional appearance. Since it requires no threading equipment and lubricants, it offers easier, faster installation.

Nibco

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F-2000S WATER FILTRATION

SYSTEM from InSinkErator is designed for exclusive use with InSinkErator water dispensing systems. It reduces



particulates. chlorine taste and odor, plus cysts, lead, mercury and other impurities for bettertasting hot beverages. It has a 1/4" quickconnect fitting and is replaced easily without contact with

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InSinkErator

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Precision Plumbing Products WWW.PPPINC.NET

▼ THE TONE BATHROOM FAUCET **COLLECTION** from Kohler is crafted

from premium metal for durability



and resistance to corrosion and tarnishing. With a fresh take on mid-century modern style. The collection consists of five faucet options, shower and bath faucets. including a free-

standing bath filler, and accessories for a coordinated look. It is offered in six different finishes: chrome, nickel, brass, matte black, and two-toned options matte black/chrome and matte black/brass.

Kohler Co.

WWW.KOHLER.COM

THE INFINITI LINE OF **TANKLESS**

HEATERS now includes the GS and GR models. Both feature a stainlesssteel heat exchanger and bottom water connections. The Infiniti® series GR has an integrated recirculation



pump and dedicated recirculation connection. Strong safety features include gas- and water-leak detection.

Bradford White

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THE ASPEN MINI WHITE **SILENT+ CONDENSATE PUMP**

complements the high-wall ductless units of all leading residential and commercial manufacturers. The mini pump fits easily beneath such units, and the slim, stylish profile design offers installation options and quick access for routine maintenance. Ultraquiet technology limits vibration caused by water pulses, reducing sound transfer. A resilient mounting further minimizes fluctuation and noise.

RectorSeal

WWW.RECTORSEAL.COM

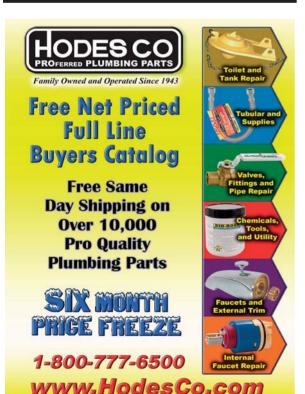






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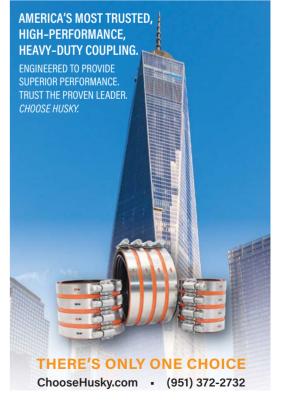




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MORKEORCE DEVELOPMENT

The workforce crisis is as bad as it has ever been. Call it a perfect storm: older workers retiring, younger people choosing not to enter the trades, and a tight labor market that has contracting firms fighting tooth-and-nail to find and keep the existing skilled hands.

Here is a selection of 5 articles that will help you navigate this labor turbulence and enable you to develop and maintain your 21st century workforce.

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WORKFORCEDEVELOPMENT



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https://www.contractormag.com/learning-resources/whitepapers/whitepaper/21120429/ebook-workforce-development



by Steve Spaulding EDITOR-IN-CHIEF

Awash in Regulation

he top story on the cover this month is about changes to the Davis-Bacon Act, the legislation that requires employers to pay the "local prevailing wage" for public works projects. The regulation is more important than ever since a raft of federal money is in the in the pipeline for infrastructure.

Last month we ran a pg. 3 story on newly proposed energy efficiency standards for water heaters from the Department of Energy. This month we have some reactions from major manufacturers in our Hydronics & Radiant Section that range from "no big deal" to "profoundly wrongheaded." You can read them starting on pg. 34.

Is seems not a month goes by without some new—and usually significant—piece of news coming out of OSHA or the EEOC. Regulatory agencies affect so much of what businesses can and can't do that some have called them the "Fourth Branch" of government.

While the US has always been a nation of laws, we were not a nation of regulations until 1887 when the Cleveland Ad-

ministration created the Interstate Commerce Commission to control the rates railroads where charging. Other early champions of regulation were the **Roosevelts**, with **Teddy** creating the FDA via the Pure Food and Drugs Act of 1906, and

telecom, FAA by aerospace). The backlash created a wave of deregulation that in turn sparked greater competition and ended up benefiting consumers.

Executive Orders by the Carter, Regan and Clinton Administrations have cre-

Regulatory agencies have been called the "Fourth Branch" of government.

FDR with banking and union regulations in response to the Great Depression.

By 1946, sentiment shifted. It was felt the regulatory agencies were exercising authority that, constitutionally, belonged to Congress. The Administrative Procedure Act of that year required that all regulations be grounded in statutory law and have an administrative record that included public notice and comment.

In the 1970s and '80s it was discovered that some regulatory agencies had been, in effect, "captured" by the industries they were supposed to control (FCC by

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Page

ated a framework for all proposed regulations that requires a cost-benefit analysis before regulations can be adopted OR discarded.

This was one of the barriers encountered by the Trump Administration when it set about a wide-sweeping program of deregulation. **Trump** famously promised to cut government regulations by 75 percent—but procedures in place made that all but impossible.

This year the Biden Administration instituted reforms to the rulemaking process that would push the Office of Management and Budget and agencies to incorporate technological advances into the rulemaking process, increase engagement with traditionally underrepresented parties, and provide OMB greater discretion over its rulemaking review. All this seems aimed at creating regulations that can better withstand judicial scrutiny.

Regulation upsets some people on principle. There is a strong sentiment in this country that, "That government is best that governs least." Personally, I feel that government regulation has an important role to play in our modern, industrialized, digital economy, and that regulations need to be taken on a case-by-case basis.

The best approach, I think, is to get involved in the rulemaking process through the public comment period, and to organize with others to do so through either your union or your local trade association. In the meantime, those of us in the trade press will try to keep you up to speed on what changes might be in the works, and what those changes might mean for you.

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SALES CONTACTS

Associate Publisher & Midwest Bill Boyadjis 973-829-0648 bboyadjis@endeavorb2b.com

South & West:
Senior Manager, Business Development,
Randy Jeter
908 Electra • Austin, TX 78734
512/263-7280 Cell: 512/426-9145;
Fax: 913/514-6628
rieter@endeavorb2b.com

East Coast:
Senior Manager, Business Development,
Brian Sack
16 Abilene Lane • Manalapan, NJ 07726
Cell: 732/629-1949;
bsack@endeavorb2b.com

Classifieds/inside sales:

Media Account Executive, Steve Suarez
10955 Lowell Avenue • Overland Park, KS 66210
Cell: 816-588-7372
Office: 941-259-0867

Office: 941-259-0867 ssuarez@endeavorb2b.com Director of Sales, Buildings &

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