

THE MAGAZINE FOR ENVIRONMENT, HEALTH AND SAFETY LEADERS

FALL 2025
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America's Safest Companies of 2025

EHS Today presents its annual celebration of companies going above and beyond in their pursuit of workplace safety. *p. 14*

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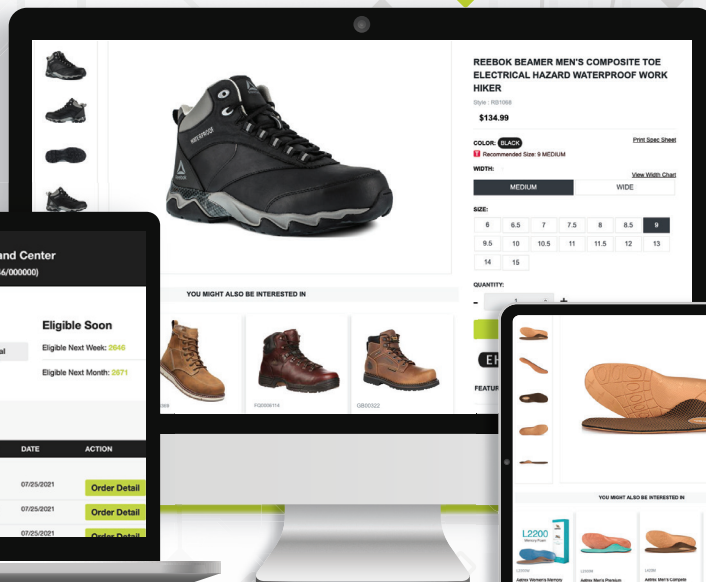
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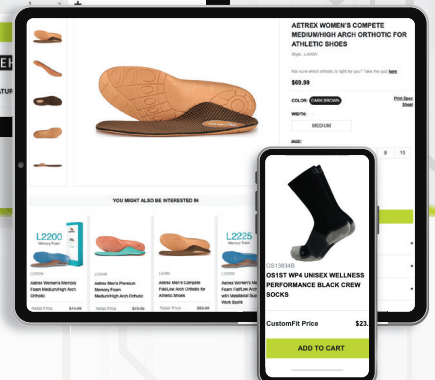
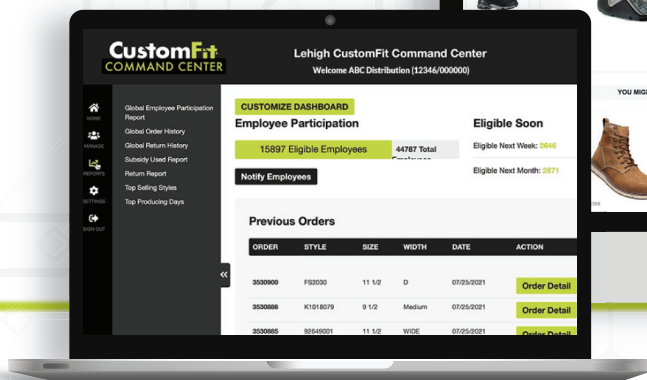
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“Leading the Way” at SLC 2025

ITEM: We hope by now that you’ve registered to attend this year’s **Safety Leadership Conference**, which is being held October 20-22 at the Renaissance Phoenix Glendale Hotel & Conference Center in Glendale, Ariz. This year’s event promises to be the best yet, with all sessions and activities focused on the theme: “Empowering Safety Professionals to Become Tomorrow’s Safety Leaders.”

ITEM: SLC 2025 will feature an amazing lineup of keynote presentations, starting with a high-level panel discussion among senior safety leaders at Honeywell Aerospace on how to improve workplace safety through effective case management. Dennis Padgett, senior director, corporate & field risk control at Coca-Cola Consolidated, will share his perspective on driving

safety performance throughout your workforce. And Mike Jones, president of Discover Leadership Training, will challenge attendees to go beyond “best practices” to “next practices” in workplace safety.

ITEM: In addition to those three keynotes, SLC 2025 will also feature track sessions focused on Regulatory Compliance, Risk Management, The ROI of Safety, and Training & Engagement. There will also be hands-on workshops, tabletop exhibits, networking lunches and receptions. And capping it off is one of the highlights of every year, the presentation of the **America’s Safest Companies** award ceremony, showcasing the best-of-the-best in workplace safety.

For more details and to register, go to safetyleadershipconference.com.

EHS TODAY (USPS Permit 905-040), ISSN 1945-9599 print, ISSN 2771-7267 online is published 4 times per year (Spring, Summer, Fall, Winter) by Endeavor Business Media, LLC, 201 N. Main St. 5th Floor, Fort Atkinson, WI 53538. Periodicals postage paid at Fort Atkinson, WI, and additional mailing offices. **POSTMASTER:** Send address changes to EHS TODAY, PO Box 3257, Northbrook, IL 60065-3257. **SUBSCRIPTIONS:** Publisher reserves the right to reject non-qualified subscriptions. Subscription prices: U.S. \$86.25 per year; Canada/Mexico \$111.25 per year; All other countries \$136.25 per year. All subscriptions are payable in U.S. funds. Send subscription inquiries to EHS Today, PO Box 3257, Northbrook, IL 60065-3257. Customer service can be reached toll-free at 877-382-9187 or at ehstoday@omeda.com for magazine subscription assistance or questions.

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Dave
Blanchard
Editor-in-Chief



The Deregulation of EHS 2025: Common Sense or Nonsense?

Are the government's efforts to administer occupational health and safety wasteful or helpful? The debate continues.

Regulatory compliance is one of the most popular topics that we cover here at *EHS Today*, and that's probably been the case dating back to the creation of the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) in the early 1970s. Today, more than a half-century later, EHS professionals are still seeking clarity as to what exactly the various federal and state regulatory agencies expect from them.

One thing we know for sure: Regulatory compliance can be expensive, in some cases even exorbitant. According to the National Association of Manufacturers (NAM), the cost of federal regulations to the U.S. economy is over \$3 trillion. Going by NAM's calculations, the average per-employee cost of regulations for a manufacturer is \$29,100, and it gets even more expensive for small manufacturers: \$50,100 per worker. Keeping the workplace safe and healthy is a good thing, but why does it have to be so expensive?

That's the question that politicians—and the constituencies that have elected them—have wrestled with for decades. The direction of the regulatory agencies historically has been subject to the whims and political postures of whichever party is in dominance at any given time. At the moment, with the Republicans firmly in control of all three branches of government, there is an obvious movement towards deregulating as many existing rules and sidelining as many proposed rules as possible, throughout all the various agencies. But let's just focus on EHS-related regulations.

The term "common sense" is one of President Trump's favorite expressions. For instance, in his second Inaugural Address this past January, he called for a "revolution of common sense" as part of his plan to completely restore the United States. The Department of Government Efficiency (DOGE) was created to eliminate wasteful agencies and activities that add costs but little to no benefit to the businesses being regulated.

To take one example, the regulation of "forever chemicals" (perfluoroalkyl and polyfluoroalkyl substances, or PFAS) has been

a political hot potato for quite some time. The EPA under President Biden issued rules regulating the amount of PFAS allowed in drinking water, at a cost to industry of at least \$1.5 billion (EPA's estimate), and as much as twice that amount (industry estimates). One of the first actions taken in the Trump 2.0 Administration was to roll back those Biden-era thresholds on forever chemicals.

Explaining the rollback, EPA Commissioner Lee Zeldin stated, "We are on a path to uphold the agency's nationwide standards to protect Americans from PFOA and PFOS in their water. At the same time, we will work to provide common-sense flexibility in the form of additional time for compliance." Zeldin has also affirmed that protecting the environment and growing the economy are not "binary choices. We must and we will choose both."

Common sense? That's not how Katherine O'Brien, an attorney with environmental law firm Earthjustice, sees it. According to O'Brien, "The Trump administration's decision to green light the continued pollution of our drinking water with toxic PFAS while crowing about their commitment to making America healthy is a sick joke."

When you get right down to it, the deregulation of US businesses, particularly as it impacts on occupational health and safety, can't conclusively be dismissed as nonsense since there is a very real rationalization for all these efforts, and in fact President Trump was elected both for his pro-business and his government-reduction policies. But neither can it be said that all these moves reflect common sense since making the workplace and the environment less safe and less healthy is hardly in the best interests of the country's workforce. So while it's really neither common sense nor nonsense, it's safe to say that deregulating EHS is a matter of dollars and cents.

A handwritten signature in dark ink that reads "Dave Blanchard".

Send an e-mail with your thoughts to dblanchard@endeavorb2b.com.

Adrienne
Selko
Senior Editor



Traits of a Good Safety Leader

Safety leaders understand that encouraging employees to act on their observations results in a safer workplace.

A discussion with a friend the other day about our different workplace cultures underscored to me the sentiment that good leadership is the major determinant of how satisfied people are at work.

While most leaders aren't trained for the roles they are moved to, the qualities of leadership that produce happy employees are core characteristics, regardless of whether they are leading others.

A succinct analysis of some of these traits in a recent article from Southern New Hampshire University caught my attention.

EMPOWER THE TEAM

It seems to be universally understood that employees desire to contribute to their organizations. Strong leaders understand this need and encourage team members to voice their ideas, opinions and concerns.

Encouraging employees to act on their observations is especially important in safety situations.

Example: During a recent interview, the importance of empowerment was described to me through a tragic example. A new employee was working alongside an experienced employee doing utility work. When the younger worker noticed that his colleague was not following the proper tethering protocols, he felt he wasn't in a position to point this out, being so new on the job. The improper procedure led to an accident in which the older employee died.

CREDIBILITY

Leaders whose actions prove that they follow through on procedures and policies establish a baseline of credibility that ensures everyone is on the same page. No one is left guessing if a program or initiative is valuable.

For safety protocols, leaders must demonstrate that they follow the same rules as everyone else.

Example: During a recent webinar I moderated, a company that collaborates with industrial companies to create safety procedures offered examples of workers not wearing the PPE that had been chosen specially to address hazards. The company representative explained that many times, the safety

culture just isn't strong enough, which leads to employees feeling complacent and ignoring procedures.

AUTHENTICITY

Staying true to who you are within a company culture is becoming essential as younger workers look for this type of leadership.

When a leader reveals their own background, no matter which category, it opens up a pathway for employees to bring their unique perspectives and strengths to the job, rather than hiding this part of themselves.

Example: I have had the good fortune of working with several leaders who are adept at talking about who they are. This creates a strong bond. And this strong bond can manifest in the attitudes teammates develop for each other. Winners of our America's Safest Companies (*see p. 14*) often speak about the culture of caring that they have created, where the norm is for employees to look out for each other's safety.

BIAS FOR ACTION

Instead of pontificating about the latest initiative, a true leader gets moving and puts a plan in action. This signals to employees that this is a program that needs attention.

For safety policies, there needs to be specific tactics around the goals of the new program.

Example: A safety expert I spoke to said that when her company viewed the metrics on their factory floor, she used it as a guideline for change. When they noticed one area had a high number of incidents, they redesigned the layout.

Using these traits as a roadmap to achieve a high standard of leadership can result in a company culture that drives employees to be actively engaged in fulfilling both the company's mission and their personal missions.

Adrienne Selko

Send an e-mail with your thoughts to aselko@endeavorb2b.com.



Is Complacency a Choice?

Preventable injuries are among the top leading causes of death across various industries. And even though complacency plays a big role, it is often underacknowledged as a contributing factor when more prominent causes are available to cite.

So, is complacency an organizational choice? If you're aware and not doing something to proactively mitigate complacency, you're essentially choosing to let complacency influence your company's safety outcomes and operating at an increased level of risk.

This free guide will define complacency, explain individual and organizational complacency, provide insights into the contributing factors and give a high-level overview of what organizations can do about it.

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the guide



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Beyond the Horizon: Creative Frontiers for Advancing Occupational Safety

Here are 10 new strategies to improve safety, culture and performance throughout an organization.

By Shawn M. Galloway

With workplace fatalities rising in several sectors and engagement declining, it is clear that conventional approaches to safety have reached their limits. Innovative companies and EHS professionals recognize that maintaining the status quo is not enough. Continuing the same practices will not bring about change; the systems within your organization are responsible for the results you see today. To achieve transformation, a shift in thinking and approaches is essential. As Marshall Goldsmith advises, “What Got You Here Won’t Get You There.”

To truly prevent harm and strengthen culture, safety leaders and senior executives must start asking a new type of question: What are the creative, underexplored ways to enhance occupational safety that we haven’t even begun discussing yet?

Here are ten innovative strategies that offer fresh, underutilized approaches to improving safety, culture and performance throughout an organization.

1. Neuroscience-driven Precaution Competency

We train people to follow rules, but what if we could condition the brain itself to recognize and respond to early cues of danger—before rationalization kicks in? Emerging neuroscience technologies (like EEG feedback loops) could be used to build intuitive, near-instinctual reactions to risk precursors. This goes beyond training—it’s about rewiring perception for real-time decision quality.

2. Narrative Engineering for Cultural Buy-in

People rarely commit to rules, but they do commit to stories that resonate. Instead of preaching safety, organizations could create internal “mythologies” or choose from real employee experiences surrounding shared identity, pride and protective legacy. Think of it as culture-specific storytelling that integrates safe behaviors into a collective narrative—woven into identity rather than compliance.

3. Behavioral Digital Twins

We use digital twins for machines. Why not apply them to culture? By integrating data from observations, wearables, sentiment tools and near-miss reports, companies could simulate the potential behavioral consequences of leadership decisions in a virtual cultural environment. This enables leaders to test interventions before implementing them in the real world.

4. Peer Connection Health Metrics

Many safety programs focus on supervision, but peer relationships often have a greater impact—and are frequently overlooked. What if we could assess the health of those peer connections? By using micro-indicators (e.g., digital badges, quick sentiment polls and conversational heat maps), organizations could identify weak ties before they result in isolation, silence or the normalization of risk.

5. AI-personalized Safety Nudges

Not all workers respond to safety messages in the same way. With AI’s assistance, we can move beyond generic



reminders and customize safety nudges based on individual risk profiles, work history and even emotional states. A fatigued, high-risk worker might receive a different kind of real-time intervention than a meticulous, cautious colleague.

6. Trust Thermometers

What if each work crew had real-time access to trust levels and safety confidence? By utilizing simple daily input tools (e.g., emoji sliders, 10-second trust scores and anonymous mood indicators), leaders could identify crews at risk of disengagement, breakdowns, or silence, enabling immediate support instead of reactive interventions.

7. Gamification of Recovery, not just Reporting

Most organizations encourage near-miss reporting but miss a major opportunity: celebrating creative recoveries and

learning moments. Teams could earn recognition for how they respond and adapt—not just for identifying issues. This fosters a proactive, resilient mindset where everyone sees themselves as part of the solution.

8. Role-reversal Simulations

Traditional safety drills simulate response. But what if you flipped the script? In a role-reversal exercise, frontline employees could act as executives, family members or media reps following a fatal incident. This deepens empathy, reveals blind spots and enhances accountability by letting people feel the human and organizational consequences of safety breakdowns.

9. Moral Injury Mapping

While physical injuries are tracked and analyzed, moral injuries—when workers feel betrayed, coerced or silenced—are rarely acknowledged. Over time,

these erode trust, increase turnover and degrade safety culture. Mapping patterns of moral harm can help leadership identify and repair cultural fractures before they metastasize.

10. Shared Ownership Rituals

Safety culture often suffers when it's invisible or treated as a checklist. Instead, develop repeatable rituals that reinforce commitment and shared ownership, such as "safety confessionals," rotating safety stewards, or intentional huddles focused on purpose and pride. These rituals become cultural anchor points that make safety personal, visible and valued.

THE CALL TO ACTION: THINK BOLDLY. LEAD DIFFERENTLY.

As we look to the future, the most successful organizations won't be those with the best rules, but those with the best relationships, instincts and preparedness for what can't be fully

predicted. Occupational safety is not merely a compliance function; it's a strategic, culture-shaping endeavor that directly affects reputation, innovation and resilience. The challenge now is to invest in creativity before crisis demands it, and to lead with creativity before incidents necessitate reinvention.

Senior leaders and safety professionals must broaden their perspective. The next frontier isn't just safer systems—it's smarter, more connected humans. Relationships have always been important to humans; now it's time to embrace technological relationships to lead us to the next frontiers of safety excellence. **EHS**

Shawn M. Galloway is CEO of ProAct Safety; host of the podcast, "Safety

Culture Excellence"; and a past keynote speaker at EHS Today's Safety Leadership Conference.

SHAWN M. GALLOWAY



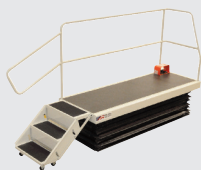
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SLC 2025 Preview:

Why Retention is All About Attitude

An inclusive and welcoming culture is a requirement to attracting and retaining top talent.

By Nicole Stempak

So much of the conversations surrounding retention focus on salary and benefits. While those are important, there's an equally crucial part of the equation that's not being discussed: the vibes.

You might not be able to adequately describe it in words, but you can definitely feel it. If the vibes at a workplace are off, employees won't want to go to work and put forth their best effort. Those personal feelings can contribute to the bottom line in the form of retention, morale, engagement, productivity and safety issues.

Fortunately, the flip side is also true.

Employers that prioritize employee well-being and job satisfaction can foster a thriving work environment where everyone feels valued, motivated and recognized. R. Wade Russell, senior HSE manager of Albany Engineered Composites (one of America's Safest Companies of 2025, *see p. 14*) explains why organizations need to check their attitude if they want to be leaders and innovators in their respective fields.

Russell, MS, CSP, will be sharing his two decades of experience enhancing employee safety in CBRNE (chemical, biological, radiological, nuclear and explosive) settings, heavy industrial maintenance, oil and gas sectors, law enforcement, emergency medical services, and the U.S. Army at **Safety Leadership Conference 2025**, being held October 20-22 in Phoenix. More information, including registration, can be found at www.safetyleadershipconference.com. Below is a preview of what to expect from Russell's presentation.

EHS Today: How can an employer's attitude help with employee retention?

Russell: People come first. Many may be familiar with the safety, quality, cost, delivery and people (SQCPD) framework. This acronym should be PSQCD because, in today's world, workers expect a different kind of treatment. To retain top talent, we must adopt a people-first attitude. Employers should make work



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both enjoyable and engaging while also being prepared to adapt to an increasingly diverse workforce.

Why or when does culture become a competitive advantage?

Culture provides a competitive advantage from the very first interaction job seekers have with a company, whether through the main website, the online career section, job descriptions or even on the first day of employment. People have walked out of orientation meetings because they "just didn't feel it." Leadership must recognize this before the job search begins.

How does an inclusive culture translate into a safer workplace?

A culture that embraces everyone contributes to safety by ensuring that people feel safe and accepted, which allows them to remain focused on their jobs and the tasks they perform. It is challenging to maintain focus and practice mindfulness when you are worried about fitting in.

Can you give some examples of how safety managers can show they value their employees?

Safety leaders need to be visible and communicate their safety vision to everyone. The entire facility



R. Wade Russell

should know who you are, what you stand for, and how you will help them stay safe. You can't manage a safety program or lead safety initiatives from your office, regardless of how many people work for you.

Budgets are tight. Safety managers may not be able to give their safety team members a promotion or raise, assuming they have a team at all. In those instances, how can managers still help those members develop and grow their skills?

A true safety leader doesn't need a budget to develop their team. While attending conferences, training courses, and seminars can be beneficial, a true safety leader has everything they need at their fingertips, drawn from their experience. Although it may require more effort, being creative in designing tasks and delegating responsibilities that challenge team members encourages them to seek out new information and take on more difficult tasks that enhance their critical thinking skills.

How is an investment in workplace safety an investment in a company's future?

Investing in workplace safety is an investment in people. By investing in people, you are investing in a company's future.

Without talented workers, a company can only be good, not great. Promoting a culture of safety fosters adaptability and innovation. As workplaces evolve and face new challenges, having a commitment to safety ensures that employees are mentally and physically prepared to navigate changes effectively. This proactive approach enables the company to thrive at both the local and global level.

You have expertise in high-risk sectors. Does your retention philosophy change, or perhaps become more instrumental, in those hazardous operations?

While the core principles of retention apply universally in high-risk sectors, an organization's approach must prioritize fostering a culture of safety; ensuring open communication; offering tailored incentives; and developing comprehensive support systems to help employees feel safe, valued and connected to the organization. This ultimately results in higher retention rates and a safer workplace environment.

What's something you hope attendees take away from your presentation at the Safety Leadership Conference?

I hope attendees recognize the importance of fostering a safety culture that goes beyond mere compliance. They must focus on people. **EHS**

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SLC 2025 Preview: Lead by Example

*To be effective leaders,
safety professionals must also
be effective communicators.*

By Nicole Stempak



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You've heard the phrase, "If it looks like a duck, swims like a duck, and quacks like a duck, then it probably *is* a duck." The duck test, while sometimes helpful for identifying species of waterfowl, is not a helpful approach to safety leadership.

If you want to be a safety leader, you must know your workers. You must know their problems, values and—perhaps most importantly—how to communicate with them. Regardless of who you're talking to, it's important to speak in the language and manner that will resonate to ensure your message is understood.

Once there's a general understanding, everyone can work toward creating a safer space for all, says Michael Kelley, vice president of quality, health, safety and environmental at Swift Current Energy. Kelley will be sharing his more than 39 years of experience as a safety professional working in traditional oil and gas sectors as well as renewable energy in United States, South America, the Middle East and Asia at the Safety Leadership Conference, being held October 20-22 in Phoenix. More information, including registration, can be found at www.safetyleadershipconference.com. Below is a preview of what to expect from Kelley's presentation.

EHS Today Safety Leadership CONFERENCE



Michael Kelley

How do our backgrounds and experiences affect our perceptions of safe practices?

People come from all sorts of backgrounds. What might seem like

common sense to one person could have others scratching their heads. If you grew up in a town where everyone wears hard hats while mowing the lawn, you might think that's just how it's done. But if you hail from a place where safety's as loose as a goose, well, you might not see the need for all that fuss.

Our backgrounds shape our views, much like a good old pot of gumbo—everyone puts their own special twist on it!

How can safety professionals train themselves to change their perceptions so they're not affected by implicit or explicit biases to what's around them?

Well, it's all about keeping your eyes wide open and looking at the big picture! Safety pros need to do some soul-searching, maybe even take a good ol'

dose of humility. They could try walking a mile in someone else's boots—figuratively, of course! Attending workshops, getting feedback or even watching a few TED Talks can help them shake off those biases like dust from a hay bale. It's like giving your mind a good spring cleaning! Well-received constructive criticism is invaluable.

EHS Today: What does it mean to be a safety leader?

Kelley: A well-rounded safety leader is an individual who effectively promotes a culture of safety within an organization by demonstrating strong communication skills, proactive risk management and a commitment to continuous improvement. They lead by example, engage employees at all levels, prioritize training and education, and utilize data-driven strategies to enhance safety practices, ensuring a safe work environment for everyone. A safety leader sets the bar high!

In safety, we talk a lot about the importance of technical training for keeping workers safe. You suggest that it's just as, if not more, important for safety professionals to be an adaptable communicator. Why?

If you can't talk the talk, you might as well be hollering' at a brick wall! Safety is not just about knowing the rules; it's about getting folks on board with those rules. The "Why we do things this way is important." If you can't make your message

clear, it's like trying to explain quantum physics to a cat—it isn't going to happen!

Being an adaptable communicator means you can switch it up, whether you're talking to a seasoned worker or a wide-eyed newbie. That's going to keep everyone safer than a cat in a room full of rocking chairs!

How can safety professionals learn or hone their communication skills, especially since they have to speak different languages to different audiences?

They can start by practicing with their friends and family! Seriously, they can join groups like Toastmasters or take improv classes—yep, the ones where you're up there actin' a fool, but learning' to think on your feet. They could also watch how other folks communicate, pick up a few tricks, and maybe even invite a dialect or two into the mix. It's all about knowing' your audience and speaking' their language, even if it means throwing' in a "y'all" or two!

You've worked on four continents. How do safety practices or perceptions differ based on the local culture?

It's like trying to compare sweet tea to iced coffee. In some places, folks treat safety like a sacrosanct religion—everyone's wearing helmets and shinin' their boots. In others, it's more

laid-back, like, "Eh, I'll just take my chances." Culture plays a huge role, and safety pros have to be savvy enough to understand those differences, just like you wouldn't wear flip-flops to a hoedown!

What are some universal safety principles? How can other safety professionals harness these to improve their own workplaces?

Now, that's a good question! Safety's like a good recipe: There are some ingredients you can't leave out! Things like communication, hazard recognition and teamwork are as universal as biscuits at a Southern breakfast. Safety professionals can harness these principles like a trusty old toolbox, making sure everyone's in the loop and working together like a well-oiled machine.

What's one thing you hope attendees take away from your presentation at Safety Leadership Conference 2025?

I want them to walk away thinking, "We're all in this together!"

Safety isn't just my job; it's a way of life. If folks leave feeling empowered to be the change and spread the word like butter on a hot biscuit, then I'll consider that a win! Let's make safety contagious, y'all! **EHS**

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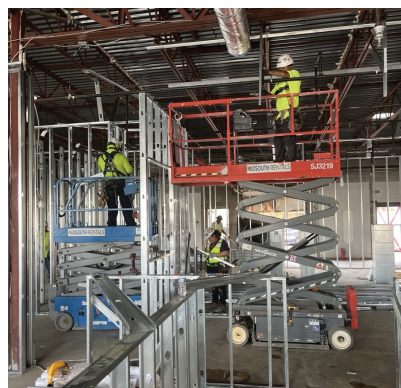
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America's Safest Companies of 2025

EHS Today presents its annual celebration of companies going above and beyond in their pursuit of workplace safety.

By Dave Blanchard, Adrienne Selko and Nicole Stempak

At first glance, there might not seem to be much in common between a Fortune 500 multinational defense contractor employing upwards of 20,000 people and a construction firm specializing in retail developments with a workforce of less than 400. And yet, both these companies share a common bond, one shared with just a few other companies in 2025: They are winners of *EHS Today's America's Safest Companies* award. That means that when it comes to workplace safety, they're the best of the best.

The America's Safest Companies award was launched back in 2002 with the goal of first identifying, and then publicizing, and ultimately celebrating those companies that go the extra mile in their pursuit of world-class safety excellence.

To be considered for the America's Safest Companies award, organizations must demonstrate excellence in several areas: support from leadership and management for EHS efforts; employee involvement in the EHS process; innovative solutions to safety challenges; injury and illness rates lower than the average for their industries; comprehensive training

programs; evidence that prevention of incidents is the cornerstone of the safety process; good communication about the value of safety; and a way to substantiate the benefits of the safety process.

The awards will be presented during a special ceremony at *EHS Today's Safety Leadership Conference 2025*, in Phoenix, Arizona, October 20-22. Go to www.safetyleadershipconference.com for all the details and to register.

The 2025 Class of America's Safest Companies are: Albany Engineered Composites, Apollo Mechanical, B.L. Harbert International, KBR, Mangan Inc., and Sevan Multi-Site Solutions Inc.

In the 24 years since *EHS Today* began the America's Safest Companies awards program, we've handed out nearly 300 awards, with some companies having won the award more than once. We hope that these safety profiles will inspire you to consider applying for the award in 2026. There's always room at the top for safety excellence.

Albany Engineered Composites

Aerospace Manufacturing

Rochester, NH

1,400 employees | 6 sites | 7 EHS professionals

To achieve the highest level of workplace safety, an organization must combine robust operational programs with an unshakeable culture.

“As a company, we believe *all* accidents are preventable,” says Bryan Valdez, senior director of EHS at Albany Engineered Composites. “Our first priority as a company is to address safety behaviors, conditions and/or hazards that could cause a SIF [serious injury or fatality].”

To achieve this goal, the company created a SIF Observation Program. Leadership at each of the companies’ nine sites takes an active role on the manufacturing floor, observing job tasks and processes to ensure that safe behaviors are being practiced.

“If there is a non-compliance observed, it is treated as a coaching opportunity that leads to an open discussion regarding safety expectations,” Valdez explains. “Investing in and monitoring safety leading indicators empowers all employees to move beyond reactive measures, fostering a



preventative safety mindset that prioritizes the proactive protection of our team member’s health and well-being.”

As part of the proactive mindset, the company holds safety kaizens. Procedures include ongoing evaluation and feedback mechanisms that lead to the implementation of small, incremental improvements. Valdez says that these are key processes for

boosting safety practices and overall performance.

Another program that focuses on preventing accidents before they happen is the company’s Hazard Identification Program (Haz ID), which Valdez notes is one of the company’s strong culturally engrained safety leading indicators. He says it offers an “excellent opportunity for employees to either voice concerns regarding behaviors or conditions in their workplace or to proactively identify methods to improve the safety of job tasks.”

In addition to structure, the company relies on the diversity of its workforce to meet these high standards. “Our strategy is to focus on the advantages inherent in our diverse workforce and promote an inclusive company culture, fostering innovation and business success,” says Valdez.

On a mission to always improve, Albany challenges its team members with the pivotal question: ‘What’s Next?’” —AS

Apollo Mechanical

Construction

Kennewick, WA

3,400 employees | 10 sites | 48 EHS professionals

Mental health awareness is a significant component of safety, but it is not always recognized as such.

“We realized that we were losing at least one family member to suicide every year, but it was never officially tracked because it always happened outside of work,” explains Mike Smail, manager of Health and Safety at construction company Apollo Mechanical.

Smail notes the “rate of suicide in construction is five times more than the rate of all fatal work-related injuries, and we were not the exception. We had to take action and came up with the suicide risk factors that we could influence and hopefully make a difference in someone’s life.”

The risk factors the company decided to focus on were:

- » Substance abuse
- » Nutrition
- » Sense of purpose
- » Well-being
- » Financial wellness
- » Stress
- » Physical well-being
- » Social connection.



“We broke each risk factor down into manageable items we could influence and started to implement those through the company,” says Smail. “Little did we realize that through implementing small changes to help prevent suicide, we inadvertently developed our own Total Worker Health program. Items we added were QPR (Question, Train, Refer) protocol, which helps supervisors identify people in crisis and know who to call. It is now taught alongside CPR for all of our supervisors and management.”

Those factors, the most important being social connections, led the company to create the SPACE (Suicide Prevention and Community Engagement) program. “When we started our SPACE program, we realized that building relationships was the most important of all the aspects of our total worker health program,” Smail notes. “When people feel like they aren’t alone, they are less likely to die by suicide and reach out for help.”

“For the last five years, Apollo has been breaking down barriers and leading the way by addressing mental health in the workplace,” says Smail. “We continue to build on the knowledge we’ve learned and have no plans on stopping.” —AS

B.L. Harbert International

Construction

Birmingham, AL

885 employees | 38 sites | 30 EHS professionals

When it comes to safety, construction firm B.L. Harbert International has a simple, no-nonsense perspective: “We expect and require that each employee treat safety as the most important part of their job, each and every day,” explains Frank Wampol, vice president, safety and health.

“Our belief is that planning for safety—being sensitive to our environment, properly training, equipping and empowering our workforce, as well as consistent accountability from the top to the bottom of our organization—is essential to our safety culture and our overall success,” Wampol says.

The company, which previous won the America’s Safest Companies award in 2014, has built its safety and health program upon the foundation of three key elements: management commitment, servant leadership, and a culture of caring.



Safety is deeply ingrained in each employee’s training from the moment they join the company. On-site, each worker is empowered and expected to identify and correct hazards from day one, Wampol explains. “Field level workers make up our site safety committees. They see their ideas put into action and are recognized for their efforts. Site safety committee findings feed corporate safety for inclusion in future safety policy and programs company-wide.”

With falls-from-height and fatal falls a continuing concern for construction workers, in 2024 B.L. Harbert initiated a partnership with Associated Builders and Contractors, Academy of Craft Training, and 3M to bring to the Birmingham, Ala., region a fall protection and confined space training facility to benefit all contractors in the Southeast. The company has also partnered with 3M DBI-Sala to develop a construction fall rescue training program utilizing the 3M R550 rescue system. According to Wampol, this fall rescue training has been deployed at multiple high-rise jobsites.

“Our executive management’s stated philosophy when it comes to safety is, ‘There are no logos or egos,’” Wampol points out. —DB

KBR

Science, Technology and Engineering Solutions

Houston, TX

38,000 employees | 169 sites | 146 EHS professionals

KBR, a Fortune 500 defense contractor that provides science, technology and engineering solutions for such industries as aerospace and energy, has a philosophy centered around creating a safer, more secure and sustainable world. The company, including all subsidiary operations, “is committed to Zero Harm in both our direct hire operations and through the performance of our subcontractors,” explains Nick Anagnostou, VP, HSSE at KBR.

Central to this commitment, he says, are the safety principles known as the Zero Harm Absolutes. “These non-negotiable KBR safety standards must be adhered to at all KBR projects and locations globally,” Anagnostou says. “Each Absolute embodies the creation of a safe and healthy workplace. Our journey to Zero Harm requires our employees to genuinely implement each commitment in their daily tasks, whether at work, home, or play.”

The Absolutes consist of the following:



- » MyKey establishes the ability for all KBR personnel, contractors or clients to employ the KBR Stop Work Authority (SWA) to suspend individual tasks or group operations when the control of EHS risk is not clearly established or understood.
- » Courage to Care Conversations for developing ongoing awareness of unsafe acts through observation, intervention and conversation.
- » Incident Investigation: All incidents and near misses must be investigated.
- » The Safety Energy Program, Anagnostou explains, is KBR’s global leading indicator program that measures safety initiative at all project sites. “High Safety Energy correlates directly with a reduced number of incidents,” he notes.
- » KBR’s Keys (Keys to Life, Key Office Behaviors, Keys to Security, Key Work from Home Behaviors, and Keys to Mental Fitness) provide global guidance on frequently encountered hazards in the office, on sites and at home, and help eliminate incidents.
- » The KBR Pre-Task Risk Analysis and Risk Mitigation process, known as Total Safety Task Instruction (TSTI), is conducted before any field-related work task or any non-routine task is performed by office-based personnel. —DB

Mangan Inc.

Oil & gas, pipeline, manufacturing, biopharma
Long Beach, CA
375 employees | 9 sites | 2 EHS professionals

Mangan Inc. wants employee feedback—and it means it. The company created a program that encourages employees to share observations and suggestions for improvement; the program's name itself, SMART Card, was chosen by employees.

Mary Gurasich, senior safety program manager at Mangan, says the SMART Card program engages employees at a personal level and encourages them to think critically about their environment, document potential hazards and take ownership of their safety decisions.

The safety team reviews every submission—last year, there were over 6,000—and personally follows up as needed. Of those, Gurasich says there were nearly 600 entries that have led to enhanced safety practices and a stronger culture.

“More than a safety tool, SMART Cards create space for honest dialogue and shared responsibility, building a workplace where employees feel safe, heard and truly part of

the team,” Gurasich says. “This open and ongoing feedback loop reinforces that every voice matters.”

Mangan employees work in highly hazardous and secure field environments. It's not always possible to have a member of the safety team on-site, so employees must be responsible for their own safety.

Employees are trained to audit and inspect their environment routinely. If they don't think it is safe to proceed, they have full stop-work authority.

Gurasich says these and other safety initiatives have led to improved engagement and created lasting cultural change.

Mangan, which was named one of America's Safest Companies in 2017, has developed an extensive assortment of leading and lagging indicators to assess effectiveness and identify areas for improvement.

Collectively, these efforts have delivered an impressive return on investment: the company has had zero recordable injuries over the past three years.

“Our safety program is not an add-on, a checkbox or a compliance requirement,” she says. “It's fully integrated into everything we do. From the start of a project to its close out, safety is embedded in our planning, our operations and our daily interactions.” —NS



Sevan Multi-Site Solutions Inc.

Commercial Building Construction
Downers Grove, IL
371 employees | 2 sites | 5 EHS professionals

Safety compliance sets the floor, not the ceiling, at Sevan Multi-Site Solutions. In addition to aligning with the ANSI/ASSP Z10 framework, Sevan's safety program incorporates numerous best practices that go beyond OSHA standards.

“At Sevan, we believe true safety leadership means proactively protecting people, not waiting for compliance to catch up,” says Chris Carter, vice president of safety at Sevan.

Sevan's training is built in-house by authorized OSHA instructors. Through its internal learning management system, Sevan University, the company provides learning plans for each position tailored to individual job duties.

The veteran-owned company has also identified its safety absolutes, the non-negotiable expectations it has set to prevent life-altering injuries and fatalities for high-risk activities, including work at heights and trenching and excavations.

Should an incident occur, it is reported immediately to the employee's supervisor and the safety department.

Executive leadership—including the CEO—is also informed within 60 minutes.

About 82% of Sevan's workforce has completed OSHA's 30-hour safety course, a requirement for all supervisors, including the CEO. CEO Jim Evans begins most all-hands calls, safety leadership meetings and safety committee meetings, reinforcing the importance of safety.

“Jim sets ambitious targets for our safety program and regularly reviews progress to ensure we are on track to meet these goals,” Carter says. “He personally evaluates all changes to safety policies and procedures, providing his endorsement when they align with his high standards.”

Last year, Sevan launched the Near Miss Challenge. The company awards \$7 for every near miss reported, with the proceeds donated to the Construction Industry Alliance for Suicide Prevention. This initiative not only incentivizes near miss reporting—a record number, in fact—but also contributes to a meaningful cause.

“At Sevan, safety isn't a requirement; it's a responsibility, a differentiator and a commitment we live by daily,” Carter says.

Sevan isn't stopping there. The company has expanded into safety consulting, helping other organizations elevate their safety programs through an array of assessments and trainings. —NS



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KEYNOTE PRESENTATIONS



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Michael Jones, President of Discover Leadership Training, on the difference between a Growth Mindset and a Fixed Mindset. Go beyond “best practices” to “next practices” in workplace safety.

Honeywell

A high-level panel discussion among senior safety leaders at Honeywell Aerospace on how to improve workplace safety through effective case management.

AWARDS CEREMONY & RECEPTION

Continuing a popular tradition at SLC, the annual presentation of EHS Today's America's Safest Companies Awards will showcase the very “Best of the Best” in occupational health and safety. Following the awards presentation, a reception will allow attendees to network with the winners as they celebrate world-class safety excellence.



Getting Ahead of Heat Stress Risks on the Job

Even in the absence of a federal rule, safety leaders have a wide range of proven strategies to reduce heat risk and protect their teams.

By Clare Epstein



#2467242709 HORN VITTHAYANUKARUN/DREAMTIME

Summer 2024 was the United States' fourth-hottest on record, and the hottest in history for many cities across the country. As global temperatures rise and heatwaves become more severe and frequent, the urgency for robust heat stress protections has never been greater.

Heatwaves are rapidly evolving into occupational hazards. From construction sites and oil rigs to mines and manufacturing floors, frontline workers are increasingly exposed to extreme temperatures that threaten their health and safety.

Federal regulation is moving slowly, but the need for action is immediate. Environmental, health, and safety (EHS) leaders must take proactive steps now to stay ahead of policy changes and protect their workforce.

HEAT RISKS ARE ESCALATING

Heat-related illnesses are not isolated or rare occurrences. According to the Bureau of Labor Statistics, 479 workers in the U.S. died from heat exposure between 2011 and 2022. What's more, there were 33,890 estimated work-related heat injuries and illnesses that resulted in time away from work from 2011 to 2020. And those are just the reported cases—many more go unreported, particularly in high-turnover or temporary labor settings.

What makes heat stress so dangerous is its stealth. Symptoms like fatigue, dizziness and confusion can develop rapidly, especially when compounded by physical labor, inadequate hydration, or the insulating effects of personal protective equipment (PPE). These symptoms are also not immediately noticeable to the untrained eye. For example, in mining and oil and gas operations, workers often operate in

remote or confined spaces, where recognizing and responding to heat stress symptoms can be delayed.

Newer workers are also particularly vulnerable. Those with limited experience in a physically demanding job are often not yet acclimatized to the heat—or best practices for dealing with it—putting them at significantly higher risk in their first few days. The same goes for employees returning to work after extended periods, such as parental leave.

With climate data pointing to hotter and longer summers ahead, these risks are only set to increase. For EHS leaders, this means heat stress can no longer be treated as a seasonal issue. It must become a year-round priority embedded into the very fabric of workplace safety.

FEDERAL REGULATIONS ARE IMMINENT

OSHA has proposed a new national rule for heat injury and illness prevention, a long-anticipated move that could establish baseline requirements for both indoor and outdoor work environments. But like many regulatory processes, it's progressing incrementally, subject to comments, political shifts and administrative bottlenecks.

In the meantime, only a handful of states (e.g., California, Oregon and Washington) have implemented their own heat safety standards. This leaves a significant portion of the U.S. workforce without consistent or enforceable protections from heat-related illness and injury. For industries with high heat exposure, this regulatory gap is a major risk.

That said, waiting for mandates is not a viable strategy. By the time this legislation is finalized, many organizations could already face rising incident rates, workforce disruption and reputational damage. Proactive measures are therefore necessary to keep workers safe in the interim.

WHAT EHS LEADERS CAN DO TODAY

Even in the absence of a federal rule, safety leaders have a wide range of proven strategies to reduce heat risk and protect their teams. First and foremost, they should remove hazardous conditions whenever possible or place a barrier between workers and potential hazards. When combating heat stress, this looks like creating a cooler working environment overall, both indoors and outdoors. Leaders can accomplish this by:

- » Installing air conditioning and/or fans;
- » Ensuring proper ventilation, especially near areas with higher temperatures;
- » Redirecting radiant heat with reflective shields; and
- » Insulating hot surfaces.

As for barriers between workers and potential hazards, PPE can be a double-edged sword. Many types of PPE can help prevent heat stress, including insulated gloves, suits or infrared-reflecting face shields. Employers may even consider exploring thermally conditioned clothing options, such as garments with built-in air conditioners and/or compressed air sources and specialized pockets for containers of ice or dry ice.

But there are certain types of PPE that can exacerbate heat stress symptoms. Specific respirators or water-resistant/impermeable clothing can trap the heat. Workers need to be aware of these risks and have extra resources available to stay cool, including the ability to take frequent breaks in shaded or cooler areas and access to ample hydration.

Supervisors should encourage employees to drink water regularly to prevent dehydration and other heat stress symptoms. They may also schedule shorter work shifts to ensure no one overexerts themselves, or arrange for physically intensive tasks to be completed during early morning or evening hours when temperatures are lower.

HEAT STRESS TRAINING

Proactive heat stress prevention starts with education. A dedicated heat stress prevention plan is the cornerstone of preparedness. It should include protocols for identifying heat hazards, monitoring environmental conditions and responding to incidents. Understanding the symptoms and causes of heat stress, as well as how to identify it when it occurs, is fundamental.

Comprehensive heat stress training should include:

- » Risk factors;
- » The different kinds of heat-related illnesses and how to identify them;
- » How to administer first aid;
- » Proper hydration techniques;
- » Preventative measures, such as acclimation; and
- » Procedures for contacting emergency medical services, if needed.

Employers should provide their workforce with accessible, ongoing training that's specific to their industry, organization and role. The most effective strategy to improve employee

engagement and retention utilizes training solutions with lessons that cater to different learning styles and communicate vital information in easily digestible ways.

BUILDING A CULTURE OF HEAT STRESS PREVENTION

Policies and checklists are essential, but they're only effective when backed by a strong culture of safety. EHS leaders must foster environments where workers feel empowered to speak up if they're feeling overheated or noticing a peer who's experiencing symptoms.

Psychological safety is key. Employees should know they won't be penalized for taking breaks, reporting symptoms or calling out unsafe conditions. Leadership plays a vital role in modeling heat safety behavior, reinforcing training messages and holding all levels of the organization accountable.

Additionally, peer-to-peer communication should be encouraged. Teams that look out for each other (e.g., checking in, sharing water and reporting concerns) are far more resilient in high-stress conditions.

Organizations should also establish systems for reporting, investigating and learning from heat-related illnesses and near misses. This type of transparency helps identify trends and improve future prevention efforts.

SAFETY AS A COMPETITIVE ADVANTAGE

Beyond ethics and compliance, strong heat stress prevention programs can deliver measurable business value. They reduce absenteeism, improve morale and minimize turnover—all of which are especially important in industries facing labor shortages. Fewer injuries also mean fewer workers' compensation claims, less downtime and lower insurance premiums.

Moreover, proactive heat safety aligns with broader sustainability goals. Investors, regulators and communities are increasingly holding companies accountable for worker welfare, especially in the face of a changing climate. Organizations that lead on this issue demonstrate operational maturity and social responsibility.

Extreme heat is a new and growing norm. While federal rules may eventually bring nationwide standards, EHS professionals don't have the luxury of time. Workers are facing these risks now, and the consequences of inaction can be devastating.

Safety leaders have a powerful opportunity to lead by example here by implementing robust heat stress prevention strategies today. Implementing accessible training based on industry best practices and committing to the development of a safety-first culture empowers leaders to protect their workforce, strengthen their operations and prepare their organizations for a hotter future. **EHS**

Clare Epstein is the general manager of commercial at Vector Solutions.

The Human Factor: Why Proper Lockout Tagout Procedures Still Fail

Workplace culture impacts LOTO compliance, beyond just having the right equipment and procedures.

By Herbert Post

On June 22, 2023, a worker at a rubber hose manufacturing plant suffered severe crushing injuries when powered belts that were still energized and unguarded pulled him into a machine. OSHA later determined that the company had failed to follow lockout/tagout (LOTO) procedures, ultimately proposing more than \$389,000 in penalties. This incident, unfortunately, is not news when it comes to lockout/tagout violations as it consistently ranks among OSHA's top 10 most frequently cited standards each year.

Most facilities cited for LOTO violations would claim to have the right equipment, procedures and safety protocols in place, so why do we still get alarming numbers of LOTO-related accidents? The answer may lie in the human factors that are behind every safety procedure.

WHY LOTO IS IMPORTANT FOR INDUSTRIAL SAFETY

Basically, a lockout/tagout procedure, when implemented 100% of the time, is designed to prevent the unexpected startup or release of stored energy in machinery. OSHA's standard for

The Control of Hazardous Energy (Lockout/Tagout) (29 CFR 1910.147) outlines the specific actions employers must take:

- » isolate all potential energy sources,
- » apply the correct locks and tags, and
- » verify that the machinery truly can't be re-energized before any maintenance or servicing begins.

Why are these standards in place? Because uncontrolled energy can pose fatal risks. As OSHA points out, a "jammed conveyor system" can suddenly release, or an "automatically turned-on steam valve" can burn unsuspecting workers in seconds.

This makes the lockout/tagout procedure a critical, life-saving practice that should be integrated into the culture of every industrial facility. Employers that fail to prioritize LOTO compliance risk more than getting hefty OSHA fines; they also risk the health and lives of their workers.

WHY PROPER LOTO PROCEDURES STILL FAIL

While it's clear how essential lockout/tagout is to industrial safety, the reality is that even well-designed LOTO procedures can fail because of several human factors.



1. Inadequate Training

Employees who are not properly trained may lack awareness of lockout/tagout procedures or misunderstand their importance. OSHA frequently cites inadequate training as a leading cause of LOTO violations, including failing to establish or communicate an energy control procedure and neglecting to conduct periodic evaluations.

Even when management invests in lockout/tagout devices and written policies, gaps in training create a disconnect between policy and practice. When employees either do not understand or undervalue the significance of LOTO, they are more likely to take shortcuts and ignore established procedures. Without thorough instruction and regular reinforcement of safe practices, workers may view LOTO as a cumbersome compliance checkbox rather than a life-saving protocol.

2. Productivity Demands

When production quotas and deadlines pressure workers, lockout/tagout procedures can be viewed as inconvenient, time-consuming steps that hinder operations.

Such was the case of a fatality at a furniture facility, where workers left power on during a minor maintenance task to minimize downtime rather than performing a full lockout. In this case, the rollers on a laminator line continued to turn to prevent the glue from hardening, but boards were often left on the conveyor “a large majority of the time” to reduce stoppage. Workers bypassed a crucial step meant to disengage the system, and an employee was fatally injured as a result.

Safety experts point out that employees under high production pressures are more likely to bypass proper lockout procedures, not because they are negligent, but because of competing motivations to maintain productivity. When employees sense that production goals override safety considerations, they may rationalize taking risks to avoid slowing the line. Risks, such as bypassing an interlock or a guard with the mentality that “this will only take a second,” sometimes have grave consequences.

3. Complacency

Routine familiarity with machinery or systems can build overconfidence, leading to complacency. Workers who have serviced the same equipment for months, or even years, may feel like they know every inch of the process, making them more inclined to overlook or dismiss crucial safety steps.

Complacency is one of the major human factors contributing to LOTO failures. When employees believe a task is “quick” or “minor,” they may decide that a lock or tag is unnecessary, assuming no harm will come from saving a few extra minutes. Over time, these habits can spread throughout the workforce. Even if no incident occurs the first few times, the false sense of security can grow stronger. Ultimately, it only takes one misstep to trigger a serious accident.

HOW TO BUILD A STRONG LOTO SAFETY CULTURE

Just as human factors can cause a well-designed LOTO program to fail, they can also be used to create a safer environment. Here are strategies on how you can build a stronger LOTO safety culture.

1. Start a Safety Culture From the Top

When managers and executives make it clear that safety is nonnegotiable, employees are far less likely to take shortcuts. Leading by example means actively participating in LOTO procedures, verifying equipment isolation alongside frontline workers, and consistently praising teams for following protocols—even if it slows production.

In the furniture facility incident cited earlier, an alternative lockout method was used to keep adhesive rollers powered to avoid downtime. This practice allowed production to continue but tragically led to a worker’s death when steps

ELECTRICAL SAFETY

were skipped. A leadership-driven safety culture could have changed that outcome by openly acknowledging the importance of proper LOTO. We all know a fatal incident means much more downtime than a LOTO procedure implemented properly.

For instance, if top management had established a clear policy that workers would not be penalized for stopping production to lock out and tag out equipment, employees would feel empowered to follow all safety steps without fear of losing time or facing disciplinary measures. This leadership approach would show that a brief pause in production is always preferable to risking a worker's life.

2. Empower Employees

When employees are encouraged to take ownership of their own and others' safety, they become active participants rather than passive observers. This begins with creating an environment where workers feel free to raise concerns, suggest improvements, and report near-misses without fear of reprimand or retaliation.

Recognizing and rewarding safe behaviors, such as properly tagging out equipment or suggesting a brief production halt for a thorough lockout, can also further encourage a culture where safety is a shared responsibility.

In the furniture facility incident, employees reportedly kept boards on a conveyor to save downtime, even though it compromised safety. Empowering employees could have given workers the confidence to speak up immediately about the risky practice and to stop the line without fearing backlash for lost production.

3. Invest in Continuous Improvement

Effective lockout/tagout training requires ongoing instruction frequent refreshers and hands-on drills. Emerging technologies, such as Internet of Things (IoT)-connected lockout devices or smart sensors that monitor machine status in real time, are beginning to reshape the future of LOTO compliance. Companies that proactively integrate these tools

through continuous training can detect unsafe conditions before human error occurs with mechanical risk.

Consider a facility that previously struggled with high LOTO violations, driven partly by a lack of thorough employee training. Rather than relying on an annual check-the-box training session, the company can adopt continuous improvement initiatives. These may include quarterly virtual reality-based drills where authorized and affected employees practice identifying hazardous energy sources and properly applying locks and tags.

PROPER LOTO PROCEDURE IS NOT ENOUGH

Both the furniture facility tragedy, where production demands led to unsafe alternative lockout practices, and the severe crushing injuries suffered by a worker at a rubber hose manufacturing plant share a critical truth: No matter how comprehensive a lockout program may appear, it will ultimately fail if the culture behind it does not value safety above convenience or speed.

Looking ahead, what we need is a holistic approach that blends technical LOTO procedures with a strong safety culture. Managers must lead by example and conduct audits that examine the effectiveness of the program. Employees must feel empowered to speak up. Safety professionals must conduct ongoing training to reinforce the imperativeness of LOTO protocols. When each individual understands and takes responsibility for preventing the unexpected release of hazardous energy, lockout/tagout becomes a genuine safety solution.

Does your workplace culture truly align with the principles of LOTO safety, or are you just checking boxes for compliance? **EHS**



Herbert Post is vice president of safety and health at TRADESAFE, a workplace safety brand specializing in LOTO, emergency eye wash and shower stations, absorbents, and safety signs.

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Measuring Well-Being with AI to Increase Safety

AI can review patterns and predict actions before safety issues occur.

By Adrienne Selko

In response to the increased awareness of the need for well-being programs to address mental health issues, companies have responded with a variety of programs.

However, designing programs that are able to deliver the needed results is an inexact science. But that doesn't have to be the case.

"When determining how to gather data and where AI fits in, the goal is to identify where action needs to be taken," explains Serena Huang, Ph.D., who spent more than a decade leading measurement and analytics strategy at brands like GE, Kraft Heinz, and PayPal. She is also the founder of Data with Serena.

"I suggest that companies place their efforts on the group of employees who are operating at a reduced capacity," said Huang. "They appear to be fine from the outside, but if you pay attention, it's not that hard to figure out."

Human behavior has the advantage of being alterable and is something a company can control, as opposed to many other risks companies face that they are unable to control, Huang notes.

Just as there are warning signs before a machine breaks down, most supervisors notice behavior patterns and can conclude that someone is not performing at their best.

The difficult part is to move past observation to create a data set that can then be turned into actionable results.

An example Huang has found at many companies is fatigue. "Fatigue occurs from factors that humans can control, such as shift schedules," Huang says.

AI can be a tool to review schedules and link to behavior. "So if I knew that Mary has been on three-night shifts, and all of our employees, on average, after three-night shifts are much more likely to make a mistake, and they work on machinery that can be dangerous, then I'm going to do something about that."



Serena Huang, CEO Data with Serena
SERENA HUANG

AI AS A PREDICTION TOOL

It's the ability to take action based on data that delivers the most value. Huang uses the example of sleep, which is a key component of well-being.

"The risk from someone who's working on a jet engine doing quality control or for someone putting together a medical device is huge if that person is not sleeping well," she explains. "And when you have a group of employees who are not sleeping well, you have a huge issue."

Measuring sleep and other indicators that determine well-being can be achieved through the use of wearables and other technologies. AI-powered wearables can track vital signs and behavioral patterns to detect early warning signs of stress, fatigue, and burnout before they compromise workplace safety, according to research.

These systems enable timely interventions by flagging concerning

changes in worker wellbeing that might otherwise go unnoticed until an incident occurs, Huang notes.

AI'S EXTENSIVE CAPABILITIES

When it comes to mental health, inclusion is a large determinant of engaged employees. Consequently, high engagement creates a safer environment, both psychologically and physically.

A 2022 article, "Workplace AI wants to help you belong," from Stanford, found that hundreds of firms are using AI to improve inclusion and belonging in the workplace. Data analytics collect real-time information on engagement, sentiment, inclusion, and employee connections.

Some tools also leverage sentiment analysis, network mapping, and internal reviews to provide a more comprehensive understanding of employee experiences.

The use of this technology to offer meaningful data when it comes to well-being is what drove Huang to publish a book in 2025, *The Inclusion Equation: Leveraging Data & AI for Organizational Diversity and Well-Being*.

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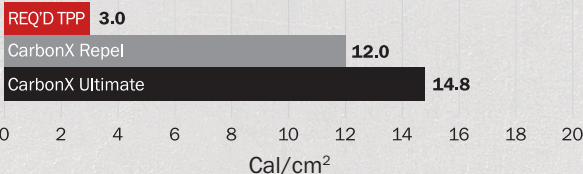
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SAFETY TECHNOLOGY

“Having spent more than a decade navigating the complexities of large global organizations, I’ve seen firsthand the power of data and AI in driving meaningful change,” she writes in the introduction.

The need to apply this data to well-being came from an experience she described in the introduction, excerpted below.

The phone rang close to midnight—an unknown number I almost ignored. But something made me answer. “Hi Serena, it’s Sara...,” The voice on the other end was shaky, laced with confusion and fear. “Hello...Sara? Are you okay?” “I...I woke up in the ER. I don’t know what happened...” My heart sank as she apologized profusely about a work deadline she might miss, her biggest concern mere hours after a medical crisis.

Sara didn’t report to me directly and was working on a project of mine as a cross-functional stretch assignment.

In that moment, a thousand worries flooded my mind. Had I been so demanding as a leader that she felt compelled to call about work deliverables from a hospital bed? Why didn’t I notice the signs that she was struggling on weekly project team calls? I assured her that her health was the priority—not the project, not the deadlines. Anything else could wait.

There was a long pause before Sara’s voice cracked again. “Can I...can I ask you something?” I could hear her trepidation. “Anything, Sara,” I reassured her. “The doctor said I had a panic attack...,” she said, her voice barely above a whisper. “I didn’t even know what they were. They said I’ve been having them for a while. What should I do?”

My stomach tightened. This wasn’t just a personal struggle; it was a symptom of a broken system. Sara, a talented employee, was suffering in silence, afraid to seek help.

BUILDING TRUST

So, how do you move from that type of phone call to introducing wearables in the workplace that can collect data to improve well-being programs? “I wish we could talk about mental health the same way we talk about 401k’s,” says Huang. “What if on the first day of orientation at the company, there is a discussion on mental health?”

Huang would even like to see a mental health week, similar to the current safety week most companies have. Some companies are doing this, she said. The feedback she has heard is that people wish they had revealed the struggle they were going through and had asked for help.

Creating a process for employees to share their struggles before they reach the point where it becomes a safety concern is something that safety professionals are working on. “What I found in research is that our mental health and our physical health are connected, and I think this is the part that people don’t tend to realize,” says Huang.

Using AI and data analytics will make that connection much easier to make, and become the basis for strategies to improve well-being. **EHS**

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Proactive Safety Planning is Vital to Construction Safety

A strong safety record is a result of preparation and accountability, not luck.

By Travis S. McConnell



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Fall hazards are one of the most serious and persistent risks in the construction industry, especially in roofing and other construction work at elevation. Whether workers are installing shingles, repairing decking or maintaining rooftop air conditioning units, the risk of falling is constant—and often has fatal results.

A TRAGIC CASE STUDY

In October 2024, a roofing contractor in Ohio was cited by the Occupational Safety and Health Administration (OSHA) following a fatal fall at a residential re-roofing project. According to OSHA, one worker fell approximately 15 feet from the roof onto an asphalt driveway and died from acute blunt force trauma to his head and torso.

The agency launched an investigation and ultimately cited the employer for six alleged safety violations, proposing a combined penalty of \$236,447. It's a steep penalty, but hardly the cost of human life. One of the violations was classified as willful, the most serious category under OSHA's enforcement framework.

The centerpiece of OSHA's citation was the allegation that the company failed to provide fall protection for employees

working more than 6 feet above lower levels, as required by federal regulation. This willful citation alone accounted for \$165,515 of the total proposed fine.

Here is a breakdown of the other citations:

- » OSHA cited the company for allegedly failing to provide proper anchorage for personal fall arrest systems. According to the agency, "anchor points were installed by nailing ropes directly into the roof decking" instead of using reinforced anchors.
- » OSHA also cited safety training violations, claiming multiple employees were not trained on fall hazards, procedures for inspecting fall protection systems or use of personal fall arrest systems.
- » OSHA claimed the company failed to report a work-related fatality within eight hours, as required by regulation.

If OSHA's allegations are accurate, this case—and many others like it—underscores the importance of having a thorough, well-executed safety program for fall protection. Proactive safety planning helps prevent injuries and limits the legal consequences that often follow serious workplace accidents.

PLAN TO PREVENT ACCIDENTS

For contractors, implementing a comprehensive safety program is essential to preventing injuries and complying with OSHA's standards. Roofing work, for example, regularly exposes crews to serious hazards, including falls, ladder accidents, tool-related injuries, extreme heat and adverse weather. To that end, a strong safety program starts with a written safety manual—a foundational document that outlines company-wide safety policies and procedures.

This manual should cover essential topics, such as fall protection, personal protective equipment (PPE), ladder safety, emergency response, and who within the company is responsible for managing and enforcing safety. To secure employees' compliance, the manual should be distributed to all employees, referenced often and updated regularly based on lessons learned in the field.

Building on the safety manual, contractors should develop a job hazard analysis (JHA) for each construction project. A JHA helps identify specific risks tied to individual tasks and work environments. For example, replacing a roof on a steep slope in high summer temperatures may require additional controls beyond what's covered in the general manual, such as increased hydration breaks and modified work hours.

The JHA examines how each task interacts with the jobsite, the tools and the crew, giving employers a clear way to anticipate safety hazards before they occur. Together, the safety manual and JHA form a two-pronged approach: one sets the baseline and the other adapts company policy to the unique risks of each jobsite.

However, the most critical step of any safety program is implementation. Safety plans must move beyond paper and into daily practice. That means training workers before they ever step onto a jobsite, reinforcing safety expectations through supervision, and taking action when policies are ignored. Supervisors or designated safety personnel should inspect sites frequently and document any corrections made. Violations should be addressed with progressive discipline, starting with retraining and escalating to suspension or termination of employment when necessary.

Each of these actions should be documented in a centralized database in the event of future incidents. A well-implemented safety program not only reduces the risk of serious injury but also helps protect the business from costly enforcement actions, mitigating the risk of willful citation items.

TRAIN EARLY AND OFTEN

A strong safety program begins with early and thorough training and keeps reinforcing it over time. New hires should receive hands-on instruction from a competent trainer before stepping onto their first jobsite. Companies with effective safety programs use this initial period to set expectations, establish safe work habits and explain the common risks (e.g., falls, ladder use and heat exposure).

Training should always be provided in a language which the worker is fluent in (typically, English or Spanish) to ensure comprehension. Additionally, before starting work and before starting any new or unfamiliar tasks, employees should be given a written test to confirm they understand core safety principles.

But wise employers don't stop there. Construction safety programs also include consistent and ongoing training. For example, weekly toolbox talks are a practical tool for reinforcing key topics and identifying knowledge deficiencies. These short meetings double as informal check-ins where supervisors can ask questions and spot misunderstandings early. Many companies also hold periodic safety stand-downs or company-wide seminars to focus on high-risk areas. OSHA's website is a useful resource, and its summaries of real-world safety incidents, such as the one referenced above, can be turned into case studies to drive home the importance of prevention.

Investing in outside training can strengthen both safety and regulatory compliance. Third-party providers offer specialized sessions on fall protection, and OSHA 10- and 30-hour courses are widely available. Many construction employers send frontline workers to OSHA 10-hour or fall-specific training, while supervisors complete the same courses, along with OSHA 30-hour certification. Employers can also bring in outside consultants to lead safety seminars or audit procedures. OSHA's investigators tend to view these efforts favorably, especially where training can be independently verified.

NOT A MATTER OF LUCK

Roofing and other elevated construction work comes with serious risks, but those risks can be managed through planning, training and consistent enforcement. Companies with effective safety programs identify hazards, build clear written policies and implement job-specific plans that are actually followed in the field. They train workers early and often, supervise actively, and address violations before they lead to harm. This approach not only protects workers, but can also mitigate legal exposure should accidents occur. Like every other aspect of construction, a strong safety record reflects preparation and accountability, not luck. **EHS**



Travis S. McConnell is a construction attorney with Ready Legal, a business law firm located in Orlando, FL. His practice focuses on all aspects of construction law, including OSHA defense and compliance, lien and bond claims, construction defect litigation, and contractor licensing. He represents all members of the construction industry, including contractors, subcontractors, suppliers, property owners, and design professionals. He has been involved in construction and safety management for more than a decade, since serving in the U.S. Army as an Engineer Officer.



Troubleshooting 4 Common Gas Detection Issues

By Rick Pedley

Gas detection techniques have a fascinating history, dating back to the 19th century when canaries served as early warning systems for toxic gases in coal mines. When coal emerged as the Industrial Revolution's energy source of choice, miners began using flame safety lamps to detect dangerous atmospheric changes in their work environments. Over time, these rudimentary methods gave way to catalytic sensors, which offered more reliable detection of hazardous gases.

Today, modern detection systems employ cutting-edge technologies (e.g., infrared and electrochemical sensors) to help maintain safe working environments in essential industries, such as semiconductor manufacturing, oil and gas, and wastewater treatment. The critical role that gas detectors play in worker safety across industries has led to a market valued at \$1.85 billion, with an expected annual growth of 5% between 2024 and 2032.

However, even the most advanced gas monitoring solutions can encounter issues over time. As such, knowing how to troubleshoot common gas detector issues is essential if you and your team regularly work in environments with potentially hazardous atmospheres. Below, we explore four of the most common gas detector problems and offer practical tips for resolving them.

1. GAS DETECTOR WON'T TURN ON

While there are several potential causes for this, they're often tied to different variables surrounding the device's power source.

Troubleshooting Steps:

- » **Check the battery.** Try replacing the batteries or recharging the unit. If replacing the batteries or recharging the device doesn't solve the issue, check the battery compartment for acid leaks, corrosion or damage. You can also consult the user manual and check the operating temperature range, as low temperatures can interfere with the voltage of alkaline batteries.
 - » **Inspect power contacts.** Over time, dust, debris or corrosion can accumulate on the battery contacts or the power cable connector. Gently remove any buildup using a clean, dry cloth. For fixed gas detectors, start by inspecting the power cable for any visible damage. If everything looks intact, test the voltage going into the device. If there's no voltage, inspect the fuse connectors running in and out of the marshalling cabinet and check the wiring inside the terminal block. The wires could be loose or in the wrong configuration.
 - » **Software and firmware updates.** Sometimes, a bug in the existing software could prevent the device from powering up. Newer firmware versions often improve compatibility with different power sources, batteries or communication protocols. Ensuring your device has the latest firmware can resolve power-related glitches.
- If the gas detector still doesn't turn on after following these steps, contact the manufacturer's customer support. The device may require servicing or parts replacement.

2. GAS DETECTOR WON'T CALIBRATE

Calibration is essential to ensuring that a gas detector provides accurate readings. When the device refuses to calibrate, it can compromise worker safety by creating a false sense of security.

Gas detector sensors have a service life and are generally not fail-safe. For instance, a lower explosive limit (LEL) sensor may show a lower reading of explosive gases as it ages. Without observing a proper calibration schedule, this may go unnoticed until significant safety issues occur.

Troubleshooting Steps:

- » **Expired sensors.** Gas detector sensors typically have a service life of two to three years. Over time, they degrade and lose their ability to detect gases accurately. If your device won't calibrate, one of the first things to check is whether the sensors need replacing.
- » **Incorrect calibration gas.** Make sure you're using the appropriate calibration gas for the specific gas detector sensor, as the incorrect gas types and concentrations can lead to calibration failure. Check the test gas expiration and refer to the manufacturer's guidelines for detailed calibration instructions. Keep in mind that calibration gases typically expire within three years, depending on whether they're reactive or nonreactive.
- » **Environmental conditions.** Sometimes, external environmental conditions (e.g., high humidity or extreme temperatures) can interfere with calibration. Ensure you're calibrating in a controlled environment in accordance with the manufacturer's recommendations.

Low battery levels can also interfere with the calibration procedures. Ensure the device has a sufficient charge before attempting to calibrate. We recommend bump testing before each use (more on that, below) and calibrating at least every six months.

3. SENSOR ERROR AND REPLACEMENT

The lifespan of gas detector sensors varies depending on the sensor type, usage and the environment in which they operate. As sensors age, they lose their sensitivity and may produce false readings or error codes.

Troubleshooting Steps:

- » **Sensor lifespan.** Check the user manual to determine the individual sensor's expected lifespan. Replacing the sensors may resolve the issue if they are approaching or beyond their recommended service life.
- » **Identify the error code.** Most gas detectors display error codes when a sensor malfunctions. The user manual provides a list of error codes and the corresponding troubleshooting advice.
- » **Sensor maintenance.** Dirt and grime can collect around the sensor housing. Use a brush or compressed air to clean the sensor filter and remove any debris that could interfere

with the signal. Use a nonabrasive cloth or tool to clean the area around the sensor.

- » **Cross-interference.** Electromagnetic interference (EMI) from radio frequencies (e.g., cell towers, communication networks and radio transmitters) can interact with gas detector sensors. This can result in unintended responses, including false alarms or exaggerated readings.

When replacing sensors, let it stabilize in ambient air before calibration. The stabilization time can vary depending on the detector model, but it typically ranges from 30 minutes to three hours. Stabilization allows the sensors to settle and reach equilibrium, helping ensure accurate baseline measurements.

4. CROSS-SENSITIVITY ISSUES

Cross-sensitivity occurs when a sensor designed to detect a specific gas reacts to other non-target gases. This can lead to false positive or negative readings, triggering unnecessary alarms.

Troubleshooting Steps:

- » **Use filtered sensors.** Some gas detectors have sensors with filters designed to reduce cross-sensitivity by blocking non-target gases from interfering with the readings. If you frequently experience cross-sensitivity, consider upgrading to sensors with this feature.
- » **Regular calibration.** Regularly calibrating the gas detector can minimize the impact of cross-sensitivity, as this helps the device adjust to changing environmental factors to maintain its accuracy. The optimal calibration frequency will depend on the manufacturer's recommendations, the types of gases monitored and the working environment.
- » **Maintain proper ventilation.** Ensuring adequate ventilation in the workspace helps reduce the concentration of interfering gases and minimize the likelihood of cross-sensitivity in gas detectors. Proper airflow can disperse non-target gases, leading to more accurate readings. Consider using portable ventilation systems, especially in confined spaces or poorly ventilated areas, to help maintain air quality and reduce the risk of sensor interference.





Every manufacturer publishes a cross-sensitivity chart outlining how non-target gases can affect the readings on different types of gas sensors. Post this resource in the workplace or give every worker a copy to carry with them.

THE IMPORTANCE OF MAINTENANCE

Despite the robust construction of modern gas detectors, the sensors they use are relatively delicate and require regular testing, calibration and proper maintenance. Here are a few best practices to help optimize the service life of your gas monitoring solutions:

- » **Routine sensor testing.** Sensors should be tested regularly to ensure they are working properly. The easiest way to do this is through bump testing, which briefly exposes the sensor to a small amount of gas to verify its response. Many gas detection systems have optional docking stations that automatically perform, record and remind users about bump tests and calibration.
- » **Document maintenance.** Keep detailed records of all maintenance, bump testing and calibrations performed on each gas detector. We recommend using gas detectors with data-logging capabilities that can automatically store this data, including concentration levels, alarm events and testing history. This information can help identify recurring issues and ensure the device complies with safety standards.
- » **Proper storage.** Store gas detectors in a dry, controlled environment to prevent damage to sensitive sensors. Avoid areas with high moisture levels, dust or extreme temperatures, as these can contribute to sensor degradation.

While gas detectors are designed to be robust and reliable, they can malfunction due to various environmental and usage factors. Ensuring gas detectors are in good working condition is crucial before beginning any work. Workers must make it a habit to check their gas detector equipment before every use, just as they do with any other safety gear.

Beyond providing the appropriate safety equipment, safety teams should also create training programs and reference materials to ensure workers understand how to maintain and troubleshoot their gas detection equipment. Through training and observation, you can help ensure your team gets the protection they deserve.

The concept of the connected worker has been an evolving aspect of the gas detector market. Some early innovations have been focused on closed or proprietary manufacturer's systems. Now, we are seeing a trend toward using third-party apps to connect gas detectors wirelessly to cloud-based systems. Making the connection much less expensive makes the tools and technology available to a broader range of customers. This should, in turn, drive further innovation.

By giving managers both real-time insights as well as information and data recording, they are in a better position to troubleshoot early and perform proactive maintenance to ensure that all equipment is in good working order—and that workers know how to properly use gas detectors. This will allow more workers to do their jobs safely and return to their families at the end of their shifts. **EHS**

Rick Pedley is president and CEO of PK Safety, a supplier of occupational safety and personal protective equipment since 1947.

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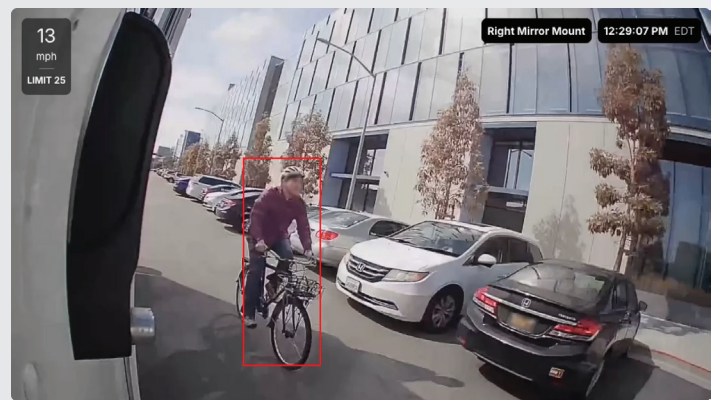
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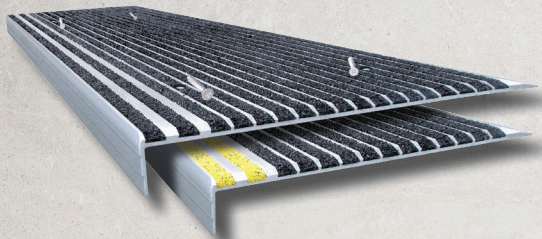
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Nicole
Stempak
Managing Editor



Finding Community

It can feel like we're floating alone at sea, but we just have to find our crewmates.

The USS Midway operated for 47 years. It was in service in the Vietnam War and Operation Desert Storm before it was decommissioned and docked in San Diego, California, where it has become one of the city's most popular attractions—and for good reason.

I was lucky enough to tour the museum ship on a recent vacation, and I cannot describe the sheer scale of everything from the anchor rode that weighs more than me to the stand mixer that is taller than me.

Aircraft carriers are floating cities at sea. The USS Midway had a crew of around 4,500 people. It blew my mind to learn how every inch of the ship was used for storage and how supplies were restocked every few days, a process that took several men several hours.

The roped off areas and signs guided me through the tourable portions of the museum ship. After several hours of walking up and down narrow stairways and around hallways, I couldn't at any given time tell if I was above or below the water or if I was closer to the bow or the stern.

I asked a yellow cap volunteer how an officer learned how to navigate the USS Midway. He said that men learned where the important places were, such as the mess hall, barbershop and hospital, but that they mostly navigated a small sphere involving their station and bunk.

I began to understand how for the officers, their individual goal was to learn how to best serve the community and broader mission. Sometimes, that means learning a specialized skill like navigation and other times it means responding to an all-hands-on-deck call like in the event of a fire.

The USS Midway had fire hoses and extinguishers along the many hallways. There were multiple closets full of firefighting protective gear. Looking at them, I was reminded of something Ben Andrew, Ed.D, MBA, CSP, and chief of occupational health and safety at the Philadelphia VA Medical Center, told me about his years of service in the U.S. Navy aboard a nuclear aircraft carrier.

"In the military, you can be a cook, you can be an administrator, a barber, whatever. You are the fire department. If you have a fire on a Navy vessel, you're talking about the possible sinking of a ship," he said.

The museum ship had a space below deck devoted to the fires aboard all aircraft carriers. Shortly before the USS Midway was decommissioned in 1990, there were two onboard explosions that led to a fire that burned for more than 10 hours. Beyond material damage to the ship's hull, three men died and eight were injured.

It was a sobering reminder of operating with ever-present risks and about the importance of community.

I hear many safety professionals say they feel alone or isolated in their organizations. They may be the only safety professional at their organization. Even if they aren't, they lament there aren't enough hours in the day for all they want to do to keep workers safe. They are regarded as a thorn in the sides of workers, operations, executives, etc. They feel like Sisyphus, waging an uphill battle every single day.

Loneliness and isolation are powerful emotions. They can cause us to feel hopeless or have a distorted sense of reality, which is why it's so vital for safety professionals to find community and take refuge in one another. Who better to understand what you're going through than someone experiencing the exact same thing? Who better to hear from than someone who was once in the trenches alongside you, or in trenches very similar to yours, and has achieved success?

There are no silver bullets or easy fixes to the challenges that plague safety professionals, and I'm convinced that solutions don't come from looking at problems in a vacuum. True progress can only happen when we all pull up a chair and roll up our sleeves.

To that end, I encourage you to attend our annual Safety Leadership Conference where, over the course of three days, you can rub elbows with America's Safest Companies of 2025 and other leading companies to learn how we, collectively, can make workplaces safer for everyone.

Nicole Stempak

Send an e-mail with your thoughts to nstempak@endeavorb2b.com.



Image created with ChatGPT. No workers (or even stock photo models) were operating a forklift with a blindfold on.

Sound Familiar?

That's not confidence—it's complacency. Most incidents don't start with bravado or recklessness, they start with routine. And if you're not actively fighting familiarity, you're passively accepting more risk throughout your workforce every day.



This free guide will define and explain individual and organizational complacency, provide insights into the contributing factors and give an overview of what organizations can do about it.

Fight Familiarity!



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