

Safety Decisions

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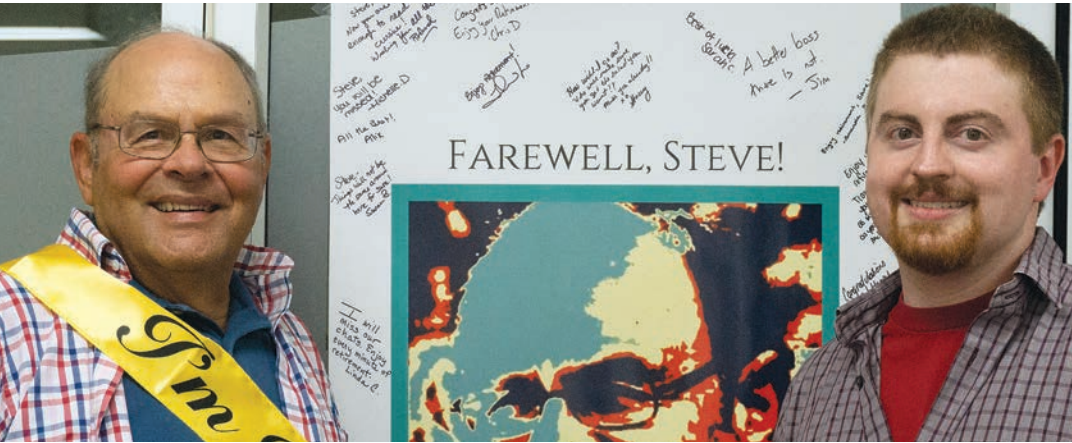
The *EHS Daily Advisor* Safety Standout Awards recognize companies and safety professionals who excel in making their workplaces safe, and this round of awards was all about safety culture.

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A FOND FAREWELL TO STEVE BRUCE



You probably recognize the gentleman in this picture with me as Stephen D. Bruce, PhD, PHR, the original managing editor of *Safety Decisions*. Steve recently retired from BLR[®] after many years of writing engaging safety and HR compliance publications, and the list of accomplishments and accolades he's earned in that time are too long to list in the short space I have here! Steve has been a wonderful mentor to me and many others in the B2B writing world, and I, along with all of his other colleagues here, appreciate him for his kind and patient leadership, sly sense of humor, and extensive editorial skills. Congratulations on your retirement, Steve—you will be missed!

We've got a great issue of *Safety Decisions* in store for you this quarter. Are you confused about drug testing and its place in your safety program? You're not alone. With a devastating opioid epidemic making headlines alongside news of legalized marijuana, the landscape for safety professionals has become tricky to say the least. In our cover story, BLR's Senior Safety Editor Emily Scace covers all types of drug testing—from pre-hire to postaccident—and how employers can walk those difficult lines where protecting employee privacy, following the law, and ensuring workplace safety intersect. We also have articles on related topics such as the benefits of oral fluids testing for marijuana

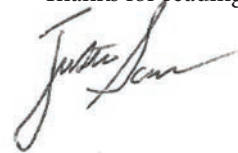
use and protecting first responders and other professionals from exposure to fentanyl.

Stop by the *Keeping Up* section for 10 timely safety news tidbits, and here are some other articles to look forward to in this issue:

- Seven Life Lessons for Safety and Beyond from E. Scott Geller
- Stop the Slip at Your Company!
- Finding the Right Leader to Drive Safety Participation
- Meet Our Latest Safety Standout Award Winners
- *Better Call Saul's* Wonderful Safety Moment
- Ray Prest's Beyond Compliance column discusses HOP and BBS
- An Employee Safety Perception Survey in our Checklists section
- A new puzzle and cartoon in our *Just for Fun* section
- And much, much more!

As always, feel free to drop us a line at *Safety Decisions* to let us know what you'd like to see next!

Thanks for reading,



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Correction: In our last issue of *Safety Decisions*, we incorrectly listed our cover story author, Earl Blair, as holding a Doctorate of Philosophy (PhD). He actually holds a Doctorate of Education (EdD).

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Business & Legal Resources

Engaged Employees Are **5x Less Likely** to Have a Safety Incident

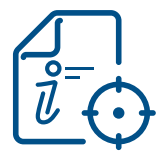


Moving Beyond the Bare Minimum for Safety Engagement

Engagement is the #1 problem for many safety professionals. Without employee engagement, even compliance can be hard to achieve. And exceptional workplace safety often requires employees to do more than the bare minimum.

Engagement can completely transform a safety culture but it cannot be mandated or forced.

Our free resources were compiled to help you inspire your employees. Download them now to go beyond the basics and improve engagement in safety.



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OSHA EXTENDS COMPLIANCE DATE FOR CERTAIN BERYLLIUM PROVISIONS

The Occupational Safety and Health Administration (OSHA) has issued a final rule, published in the August 9 *Federal Register*, to extend the compliance date for specific ancillary requirements of the general industry beryllium standard to December 12, 2018.

The extension affects provisions for methods of compliance, beryllium work areas, regulated areas, personal protective clothing and equipment, hygiene facilities and practices, housekeeping, communication of hazards, and recordkeeping. This compliance date extension does not affect the compliance dates for other requirements of the general industry beryllium standard.

OSHA says the extension will maintain essential safety and health protections for workers while the agency prepares a Notice of Proposed

Rulemaking to clarify certain provisions of the beryllium standard that would maintain the standard's worker safety and health protections and address employers' compliance burdens.

OSHA began enforcing the new permissible exposure limits for general

industry, construction, and shipyards and the general industry provisions for exposure assessment, respiratory protection, medical surveillance, and medical removal on May 11, 2018. Those requirements are unaffected by this rule. Any provisions for which the standard already establishes compliance dates in 2019 (change rooms and showers) or 2020 (engineering controls) are also unaffected by this rule.

The Final Rule is available at www.gpo.gov/fdsys/pkg/FR-2018-08-09/html/2018-17106.htm.



Washington Manufacturer Fined Over \$250K After Burn, Amputation Incidents

A Seattle company that manufactures electronics mounting systems and other products is facing more than \$250,000 in fines for multiple serious and willful worker safety and health violations discovered during three separate inspections this year.


An inspection by the Washington State Department of Labor & Industries (L&I), which administers and enforces workplace safety and health compliance in the state, identified 26 total violations, including multiple serious and willful violations, collectively resulting in fines totaling \$253,320.

The amputations, which involved several fingers of one worker, occurred in a facility where there were five trimming presses, each of which was in some sort of disrepair.

Among other problems, each machine had an emergency stop button that was either blocked, missing, or in disrepair. Worn out and unaligned springs that made the operator visually line up levers were a contributing factor in the injury.

The burn injury happened at another facility where workers were carrying molten aluminum from one machine to another in ladles slung over their backs without wearing proper personal protection equipment.

Because the company has been cited in the past for similar situations, the company is now considered a severe violator—a designation that carries consequences that include follow-up inspections at any of their facilities or sites that could have similar hazards.



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KEEPING UP

Aircuity's New Vodcast Has Tips for Implementing a Smart Labs Design

Aircuity (www.aircuity.com) has announced the release of its new educational vodcast, which discusses important tips for environment, health, and safety (EHS) professionals to keep in mind during the implementation of a Smart Labs Program on their campus. Information is provided about saving energy through intelligent ventilation and the health and safety benefits of Smart Labs.

A number of university and other life science organizations have begun to implement the Smart Labs Design in order to minimize energy usage while enhancing the health and safety of the space for occupants. The information in this vodcast is based on feedback collected from working with current Aircuity university EHS clients and was created for those clients interested in or beginning to implement a Smart Labs Program. Topics covered include an overview of the intelligent approach to reducing energy use, a lab-by-lab systematic evaluation, and the way in which data provided by a demand control ventilation system can benefit EHS professionals.

To view this vodcast and learn more about Smart Labs Design for university EHS teams, visit https://www.youtube.com/watch?v=Uwfq_oYTSN0&feature=youtu.be.



CAL/OSHA: GENERAL INDUSTRY WORKPLACE VIOLENCE RULE ON THE HORIZON

In 2017, California became the first state in the nation to implement a regulation requiring healthcare employers to take steps to prevent workplace violence. That rule took effect in April 2018. Now, the state's Division of Occupational Safety and Health, better known as Cal/OSHA, is developing a similar standard for general industry.

The most recent draft of the standard, developed in December 2017, would apply to all employers in California except for those already covered under the healthcare violence prevention standard, state of California healthcare facilities explicitly exempt from the healthcare violence prevention standard, Department of Corrections facilities, and certain law enforcement agencies. An advisory meeting in January sought feedback from stakeholders on the proposal.

In developing the general industry draft standard, Cal/OSHA relied heavily on the healthcare version as a model. Hence, the two rules would share many commonalities, with both requiring a written plan, training, and recordkeeping.

Could Your Forklifts Cause CO Poisoning?

One of the most common indoor sources of carbon monoxide (CO) is a forklift that has not been properly maintained or for which a dilution flow of air has not been established. In a fact sheet, OSHA says employers can implement the following measures to reduce the chances of CO poisoning in employees:

- Install an effective ventilation system that will remove CO from work areas.
- Maintain equipment that can produce CO in good working order to promote its safe operation and reduce CO formation.
- Consider switching from gasoline-powered equipment to equipment powered by electricity, batteries, or compressed air.
- Prohibit the use of gasoline-powered engines or tools in poorly ventilated areas.
- Provide personal CO monitors with audible alarms if potential exposure to CO exists.
- Use a full-face piece pressure-demand self-contained breathing

apparatus (SCBA) certified by the National Institute for Occupational Safety and Health (NIOSH) or a combination full-face piece pressure demand supplied-air respirator with auxiliary self-contained air supply in areas with CO concentrations immediately dangerous to life and health atmospheres.

- Use respirators with appropriate canisters for short periods under certain circumstances where CO levels are not exceedingly high.
- Educate workers about the sources and conditions that may result in CO poisoning as well as the symptoms and control of CO exposure.

OSHA's CO fact sheet is available at www.osha.gov/OshDoc/data_GeneralFacts/carbonmonoxide-factsheet.pdf.

WHAT'S A FOOT-CANDLE, ANYWAY?

OSHA illumination standards for construction (29 CFR 1926.56) and shipyard employment (29 CFR 1915.82) are intended to ensure that specific work areas are provided with lighting that is sufficient to enable the workers to see hazardous conditions and avoid injury. The standards set minimum lighting requirements in terms of foot-candles ... a term that OSHA itself has acknowledged does not provide clear direction on how much light is needed for specific tasks.

A foot-candle is the amount of light generated by a single candle that falls on a single square foot of surface no more than a foot away from the candle. While the term continues to be used in OSHA's standards, lighting professionals consider it out of date, and it has generally been replaced by more precise terms, such as lumen and lux. A lumen measures the total amount of visible light emitted by a given source; lux is used to measure the amount of light output in a given area.

Neither standard addresses how to measure foot-candles or lumens for the purpose of compliance. However, in a letter of interpretation

from 1991 (which you can read at <https://www.osha.gov/laws-regs/standardinterpretations/1991-05-08-1>), OSHA states that the existing illumination level at any work surface within a worksite is best measured with a light meter reading in lumens per square foot, which are equal to foot-candles. That advice remains relevant to OSHA's illumination standards.



NIOSH Notes Black Lung Disease Is on the Rise

Coal workers' pneumoconiosis (CWP), better known as black lung disease, afflicting coal miners in Appalachia appears to be on the rise, reports the National Institute for Occupational Safety and Health (NIOSH).

“One in ten underground coal miners who have worked in mines for at least 25 years were identified as having black lung,” NIOSH states in a new report. “Coal miners in central Appalachia [Kentucky, Virginia, and West Virginia] are disproportionately affected with as many as 1 in 5 having evidence of black lung—the highest level recorded in 25 years.”

According to NIOSH, this latest national estimate of 10% is higher than the previous NIOSH estimate last reported using data from 2012, which found 7% of coal miners who worked more than 25 years in underground mines had evidence of black lung.

NIOSH's data come from its Coal Workers Health Surveillance Program (CWHSP). Established in 1970, the CWHSP offers health screening services to miners, including periodic chest X-rays, lung function testing, respiratory health assessment questionnaires, and extended health surveillance to workers at surface coal mines.

NIOSH notes that by the late 1990s, the proportion of screened miners with black lung disease reached the lowest level on record. However, after that time, the nationwide prevalence of black lung has increased.



Wet Cutting to Control Silica Exposure with Handheld Saws

Wet cutting is the preferred engineering control for most operations, including handheld sawing, that produce silica-containing dust. OSHA provides the following directions for wet cutting with handheld power saws:

- All wet-cutting operations:
 - > The saw must be operated in accordance with manufacturer's instructions to minimize dust emissions.
 - > Check that hoses are securely connected and are not cracked or broken.
 - > Adjust nozzles so that water goes to the blade and wets the cutting area.
 - > Inspect the saw blade before use to be sure it is in good condition and does not show excessive wear.
 - > Maintain the operating saw's dust-control equipment based on the manufacturer's instructions.
 - > Clean up any slurry produced to prevent it from drying and releasing silica dust into the air. Wet slurry can be cleaned up with shovels or a wet vacuum equipped with a high-efficiency particulate air (HEPA) filter.
- Wet cutting indoors or in enclosed areas:
 - > Wet cutting indoors or in enclosed areas may not reliably keep silica exposures low, so extra ventilation or a means of exhaust may be needed to reduce visible airborne dust.
 - > Extra ventilation can be supplied by using exhaust trunks, portable exhaust fans, air ducts, or other means of mechanical ventilation.
 - > Ensure airflow is not impeded by the movements of employees during work or by the opening or closing of doors and windows. Position the ventilation to move contaminated air away from the workers' breathing zones.

OSHA Gets a (Slight) Pay Raise



The House Appropriations Committee released its 2019 budget bill to the full Senate and included a modest \$4 million increase for OSHA, from \$552,787,000 in 2018 to a recommended \$556,787,000 in 2019. OSHA's budget is included in appropriations for the Department of Labor.

Specific programmatic appropriations in the bill include the following:

- \$499,000 to allow OSHA tuition and fees for training institute courses used for occupational safety and health training and education activities in the private sector.
- \$102,850,000 for grants to states under Section 23(g) of the Occupational Safety and Health Act (OSH Act). These funds primarily are provided to states that have taken responsibility for administering their own occupational safety and health programs for the private sector and/or the public sector.
- \$10,537,000 for the Susan Harwood Training Grant Program, including not less than \$4,500,000 set aside for capacity building development grants required by the OSH Act. Capacity building grants focus on developing and/or expanding the capacity of an organization to provide safety and health training, education, and related assistance to the targeted audiences. The organization must provide financial plans to continue capacity beyond the grant period.
- \$3,500,000 to administer the Voluntary Protection Program (VPP). In the VPP, management, labor, and OSHA establish cooperative relationships at workplaces that have implemented an outstanding safety and health management system.

Groups Press OSHA for Heat Stress Standard

In conjunction with a new report by Public Citizen, 130 groups have petitioned U.S. OSHA to initiate rulemaking for the first federal standard to protect indoor and outdoor workers from occupational exposure to excessive heat.

Both the report and the petition list the provisions petitioners believe should comprise OSHA's standard. These provisions are, in part, based on standards to protect workers from extreme heat that have been formalized by California, Minnesota, and Washington, the only three states that have instituted and implemented protective heat standards for their workers.

This is not the first time OSHA has been urged to issue a heat stress standard. In 1972, NIOSH recommended a standard requiring employers to protect their workers from heat stress. An OSHA advisory committee reviewed the recommendation and agreed with it. NIOSH made the same recommendation in 1986 and 2016. Public Citizen and other groups had also sent OSHA a petition similar to the current petition at the end of the summer of 2011. **SD**

Keeping Up is compiled by staff and contributors of the EHS Daily Advisor and Safety Decisions magazine.

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DRUG TESTING: ESSENTIAL SAFETY TOOL OR REPORTING DETERRENT?

Drug use on the job is a growing hazard. But workplace drug testing policies can create problems of their own.

By Emily Scace

COVER STORY

No responsible employer—particularly one in a high-hazard industry—wants a worker under the influence of alcohol or drugs on the job. Employees operating heavy machinery, driving on the job, working at heights, or performing any number of safety-sensitive tasks while impaired create serious hazards for themselves and others and liability for the company. Even away from construction sites and other dangerous workplaces, employees who abuse alcohol or drugs create costs for the company in the form of absenteeism, lower productivity, and a host of other negative impacts.

In the midst of the ongoing opioid epidemic and the legalization of marijuana in a growing number of states, the issue of substance abuse at work takes on greater urgency. In response, many employers turn to drug-free workplace policies, often accompanied by drug testing programs. Though generally well-intentioned, such programs can create their own problems if not properly designed and implemented. From potentially deterring the reporting of work-related injuries and illnesses to opening the door to citations for illegal retaliation, employers must be careful to strike a delicate balance between respecting employee privacy, ensuring a safe working environment, and staying on the right side of the law.

Types of Drug Testing

There are several common situations where employers might perform drug testing of applicants or employees, each with its own benefits and challenges:

- **Prehire testing.** Some employers require new hires to pass a drug test as a condition of employment. Prehire testing is generally conducted after a job offer has been extended but before the new employee begins work.
- **Random testing.** In a random drug testing program, a percentage of the workforce is drug tested per month, quarter, year, or some other time frame. The specific employees required to submit to these drug tests are chosen on a random basis. Random testing is often promoted as an effective deterrent to workplace drug use, but some states place restrictions on this type of testing, allowing it only when there is a demonstrable safety-related rationale or when required by federal law.
- **Reasonable suspicion testing.** Reasonable suspicion testing is performed when a supervisor or other company official has reason to believe, based on observable signs and symptoms, that an employee has used a prohibited substance. Supervisor training in recognition of the signs of substance use and what constitutes grounds for a drug test is crucial for a successful reasonable suspicion testing program.
- **Postincident testing.** Some employers conduct drug testing following certain workplace incidents, including injuries, motor vehicle accidents on the job, and incidents that cause property damage over a specified dollar amount. Postincident testing is required for some employers, and some workers' compensation insurers offer incentives such as premium discounts to employers that conduct such testing. This is the type of drug testing with the greatest potential for scrutiny from the Occupational Safety and Health Administration (OSHA), for reasons we'll examine shortly.
- **Return-to-duty and follow-up testing.** Some employers conduct this type of testing for employees who have tested positive for substance use in the past and completed a rehabilitation program as a condition of returning to and remaining in their jobs.

CONSIDERING A POSTACCIDENT DRUG TEST? ANSWER THESE QUESTIONS

If you can answer "yes" to one or more of the following questions, chances are good that OSHA would consider the drug or alcohol test to be reasonable. If you answer "no" to all of these questions, reconsider your rationale and what you hope to gain from a drug or alcohol test before proceeding.

- Could drug or alcohol use have caused or contributed to the accident?
- Can a drug or alcohol test accurately identify impairment at the time the injury occurred?
- Will a drug or alcohol test help to identify the root cause of the incident?
- Are all employees who could have caused or contributed to the incident tested, rather than only those who were injured?
- Is there an objectively reasonable rationale for drug and alcohol testing other than employee discipline?
- Are you required to conduct postaccident drug and alcohol testing under a state or federal law or regulation?
- Do you participate in a state Drug-Free Workplace program that offers premium discounts or other incentives to employers that conduct postaccident drug testing?
- Do you have a heightened interest in identifying drug and alcohol use on the job due to the hazardous nature of your industry?
- Will a drug and alcohol test contribute to workplace safety?



Background: OSHA's Injury Tracking Rule

In 2016, OSHA published a Final Rule in the *Federal Register* titled *Improved Tracking of Work-Related Injuries and Illnesses*. The rule required certain establishments to submit data about work-related injuries and illnesses to OSHA annually through an online system. Although the records subject to these submission requirements were not new—the establishments affected by the rule were already required to maintain them—injury and illness records had thus far been primarily internal documents except in the case of an OSHA inspection or a request from the U.S. Bureau of Labor Statistics.

The rule has been controversial from the start. Critics contend that collecting and publishing company-specific injury and illness data—which OSHA announced its intent to do—incentivizes underreporting of injuries and pushes employers to overemphasize lagging indicators, such as injury rates, rather than leading indicators, which many in the EHS field extol as offering a better, more complete understanding of safety performance.

Whether the agency publicly acknowledged it or not, OSHA must have seen some merit to the underreporting concerns, because it included two provisions in the final rule that aim to ensure that employees know how, when, and where to report work-related injuries and illnesses and to protect employees who report injuries from negative repercussions. Those provisions—29 CFR 1904.35 and 1904.36—have significant implications for employers' postaccident drug testing policies.

Antiretaliation Provisions

The first provision, 29 CFR 1904.35, employee involvement, requires employers to involve employees in injury and illness recordkeeping, establish and communicate a reasonable procedure for employees to report injuries and illnesses, and inform employees of their rights and protections for reporting work-related injuries and illnesses. At 1904.35(b)(1)(iv), OSHA directs employers, "You must not discharge or in any manner discriminate against any employee for reporting a work-related injury or illness."

The second provision, 29 CFR 1904.36, prohibition against discrimination, reiterates the whistleblower protections for workplace safety and health matters that are detailed in the Occupational Safety and Health Act of 1970 (OSH Act). The regulation reads:

In addition to §1904.35, section 11(c) of the OSH Act also prohibits you from discriminating against an employee for reporting a work-related fatality, injury, or illness. That provision of the Act also protects the employee who files a safety and health complaint, asks for access to the part 1904 records, or otherwise exercises any rights afforded by the OSH Act.

Notably, drug testing is not specifically mentioned in either of these provisions. However, in the preamble to

"ALTHOUGH DRUG TESTING OF EMPLOYEES MAY BE A REASONABLE WORKPLACE POLICY IN SOME SITUATIONS, IT IS OFTEN PERCEIVED AS AN INVASION OF PRIVACY."

the final rule, OSHA laid out some of its thinking about the relationship between postaccident drug testing and injury and illness reporting. "Although drug testing of employees may be a reasonable workplace policy in some situations, it is often perceived as an invasion of privacy," the preamble states, "so if an injury or illness is very unlikely to have been caused by employee drug use, or if the method of drug testing does not identify impairment but only use at some time in the recent past, requiring the employee to be drug tested may inappropriately deter reporting."

In other words, OSHA believes that subjecting employees to a drug test as an automatic consequence of reporting an injury, regardless of the probability that drug use caused or contributed to the injury, will lead some employees to hide their injuries—an outcome that both conflicts with OSHA's goal of obtaining accurate injury and illness data and prevents employers from learning about the injuries and illnesses their workers incur and taking appropriate steps to address hazards.

In addition to its likely deterrent effect, OSHA believes that some types of postaccident drug testing could constitute illegal retaliation for injury reporting. "The final rule does prohibit employers from using drug testing (or the threat of drug testing) as a form of adverse action against employees who report injuries or illnesses," notes the preamble.

In an October 2016 memorandum, OSHA elaborated on this point, asserting that employers are prohibited from "administering a drug test in an unnecessarily punitive manner regardless of whether the employer had a reasonable basis for requiring the test." While the precise meaning of "unnecessarily punitive" is subject to interpretation, drug testing protocols intended to embarrass or shame an employee would likely fit the definition. Thus, employers not only need to verify that a drug test is appropriate for a particular situation, they also need to pay close attention to the manner in which drug tests are carried out.

Exceptions: Other Laws and Workers' Compensation

OSHA has clarified that if employers are required to conduct postaccident drug testing by another federal or state law or regulation, the other law takes precedence, and OSHA would not consider such testing to be retaliatory. For example, a commercial motor carrier that is required by the U.S. Department of Transportation (DOT) to test its drivers for drug and alcohol use after certain types of motor vehicle accidents should continue to do so.

Similarly, drug testing conducted under a state workers' compensation statute would not be considered retaliatory. Many states offer voluntary Drug-Free Workplace programs that provide incentives such as workers' compensation premium discounts for participation, and if an employer conducts postincident drug testing to meet the requirements of such a program, OSHA will not issue citations for retaliation, regardless of the circumstances surrounding a particular injury or illness. The same holds true for an employer with private workers' compensation insurance whose carrier implements a program that mirrors the relevant state's Drug-Free Workplace program.

Enforcement

Before the electronic recordkeeping rule took effect, retaliation against employees who report injuries and illnesses was already prohibited under Section 11(c) of the OSH Act; however, the new provisions gave OSHA an additional enforcement tool. Under Section 11(c), OSHA can only investigate retaliation for injury reporting in response to an employee complaint filed within 30 days of the retaliation. The provision at 29 CFR 1904.35 allows the agency to investigate and issue citations to employers that retaliate against employees *even if the employee does not complain*.

The antiretaliation provisions also open employers up to citations for a longer time period after an alleged retaliatory action than the Section 11(c) protections. Employees have just 30 days to report retaliation for workplace safety and health issues under the whistleblower rules, but under the antiretaliation provisions, OSHA can issue citations for an employer's adverse action against an employee who reported an injury or illness for 6 months after the alleged retaliation.

In a November 2016 enforcement memorandum, OSHA stated that in order to issue a citation under the antiretaliation provisions, it would need to show the following three elements:

1. An employee reported a work-related injury or illness;
2. The employer took adverse action against the employee; *and*
3. The employer took the adverse action against the employee *because* the employee reported a work-related injury or illness.

Penalties for violations of these provisions depend on the severity of the case but may be up to \$12,934—the

maximum fine for an other-than-serious violation. In addition, required abatement measures are likely to impose additional costs on employers, such as back wages for the employee who was subject to adverse action.


Policy Implications

Given all of the ambiguous stipulations and the potential for costly citations, should employers give up on drug testing altogether? In a word, no. OSHA is careful to emphasize that it does not prohibit all drug testing; prehire testing, random testing, reasonable suspicion testing, return-to-duty testing, and follow-up testing are not affected by the rule. OSHA is concerned exclusively with postincident drug testing and, in particular, with what the agency terms "blanket post-injury drug testing policies"—policies in which all employees who report an injury or illness are automatically drug tested without regard to cause.


From a policy standpoint, the bottom line is that drug testing must not be used as a disciplinary tool against employees who experience injuries on the job, nor should it be implemented in a manner that deters or discourages employees from reporting those injuries, even unintentionally.

The key consideration for employers considering a post-injury drug test is whether there is an "objectively reasonable basis" for testing. Properly used, drug testing can be a valuable tool to help identify the root cause of an incident. But there are many types of on-the-job injuries and illnesses that are unlikely to be related to drug or alcohol use. In OSHA's view, automatically drug testing all employees who report injuries is likely to induce many to hide their injuries rather than endure a perceived privacy invasion or potentially jeopardize their employment with a positive drug test.

OSHA illustrates the difference between reasonable and unreasonable testing through a series of scenarios at https://www.osha.gov/recordkeeping/modernization_guidance.html.



"OSHA IS CONCERNED EXCLUSIVELY WITH POSTINCIDENT DRUG TESTING AND, IN PARTICULAR, WITH WHAT THE AGENCY TERMS 'BLANKET POST-INJURY DRUG TESTING POLICIES.'"



In Scenario 1, an employer requires an employee to take a drug test after the employee reports work-related carpal tunnel syndrome. The employer has no reason to believe drug use could have caused or contributed to the condition and no prior suspicion of drug use; however, company policy requires drug testing for all work-related injuries.

OSHA considers the employer's actions in the above scenario to be a violation of its antiretaliation provisions. Even if the employee had been under the influence of drugs or alcohol, there is no logical relationship between drug or alcohol use and the development of carpal tunnel syndrome. Therefore, drug testing in this case serves no legitimate safety-related purpose. It provides no information about the root cause of the incident nor does it provide any useful insight into how to prevent similar injuries in the future.


In a contrasting scenario (Scenario 2), an employee reports an injury after he drives a forklift into a piece of stationary equipment. The employer requires him to take a drug test—and in this case, OSHA concludes that the drug test is warranted given the circumstances of the case. The agency states: “Because Employee X’s conduct—the manner in which he operated the forklift—contributed to his injury, and because drug use can affect conduct, it was objectively reasonable to require Employee X to take a drug test.”

Note that in Scenario 2, the drug test serves a demonstrable safety-related purpose. By determining whether the employee was under the influence of drugs or alcohol at the time of the forklift incident, the employer gains useful insight into the cause of the incident that it can use to determine appropriate corrective actions, whether those include disciplinary consequences (in the case of a positive test), equipment inspection, new engineering controls or safe work practices, or other measures. The testing is not retaliatory; rather, it is a tool to uncover and mitigate risks and hazards in the workplace as part of a comprehensive culture of safety.


OSHA’s scenarios are relatively straightforward, but in a real workplace, the causes of an incident can be difficult to discern. Carpal tunnel syndrome and forklift accidents are easy to categorize according to OSHA’s logic, but what about a back strain caused by a fall? A laceration from a machine without its guards in place? In both cases, an argument could be made in either direction, and an employer’s initial assessment of a situation may differ from an OSHA inspector’s view.

In essence, OSHA’s antiretaliation provisions force employers to hypothesize about the potential causes of an incident *before* conducting a formal root cause analysis in order to determine whether a drug test is appropriate. OSHA clarifies that employers do not need to specifically suspect drug use before ordering a test; however, part of having a reasonable basis for drug testing includes developing a rationale for whether and how drug or alcohol use could have contributed to an injury or illness.

To complicate matters further, alcohol and drug tests have a limited window of time in which they can accurately



“... DRUG AND ALCOHOL TESTS SHOULD BE TRIGGERED BY A TYPE OF INCIDENT RATHER THAN BY AN INJURY-RELATED OUTCOME, AND TESTING CANNOT BE SELECTIVELY APPLIED ONLY TO INJURED EMPLOYEES.”



identify impairment at the time an incident occurred, depending on the substance in question and the type of test. Therefore, the employer must hypothesize and decide fast. For some substances, there is no universally agreed-upon standard of what constitutes impairment, and tests may not accurately distinguish between impairment at the time of the incident and use at some time in the past.

So how should employers proceed? The best policy likely includes careful consideration and documentation of the rationale for every postinjury drug or alcohol test an employer decides to conduct, along with consistency in application. In other words, drug and alcohol tests should be triggered by a type of incident rather than by an injury-related outcome, and testing cannot be selectively applied only to injured employees—a red flag in OSHA’s eyes. An employee who causes an incident but does not incur an injury should not be excused from drug testing if that same type of incident would trigger a drug test if an injury had occurred.

Bottom Line

Decisions around workplace drug testing are more complicated for employers than ever before, and valid safety concerns weigh on both sides of the debate. Employers have an obvious interest in identifying and mitigating the hazards of on-the-job substance use. Arguably, however, a culture of open communication where employees feel free to raise safety concerns and report injuries without fear of adverse action increases safety awareness across the organization.

So, what should employers do? How should they balance these competing factors? There are no straightforward answers, but consistency, communication, documentation, and a clear, rational policy will go a long way. **SD**

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Seven Life Lessons for Safety and Beyond: Evidence-Based Principles for Improving Human Well-Being

After studying, teaching, and researching psychology for more than 50 years, I've come to realize the utmost value of seven evidence-based life lessons people need to practice daily. **By E. Scott Geller, PhD**

Indeed, my recent keynote addresses at various professional conferences, including at BLR's Safety Culture 2018, have highlighted these life lessons. Plus, I've recently authored or coauthored four teaching/learning manuals that detail these fundamentals for a particular audience: Police officers, school personnel, college students, and safety professionals. The guidebook for occupational safety, coauthored by my daughter, Krista S. Geller, PhD, was published last year by the American Society of Safety Professionals (ASSP). The title of this book reflects our mission: *Actively Caring for People's Safety: How*

DOUG PONTE

to Cultivate a Brother's/Sister's Keeper Work Culture.

If practiced routinely and extensively, the seven life lessons elucidated in these manuals and reviewed here would do more than prevent workplace injuries. Human welfare would be improved by more interpersonal diplomacy and civility, win-win collaboration, enhanced work productivity, and life satisfaction. The first four lessons reflect the behavioral science principles of positive reinforcement, observational learning, and behavior-based feedback. The subsequent three lessons are derived from humanism. Thus, the academic label for these evidence-based lessons is humanistic behaviorism. We call it “Actively Caring for People” (AC4P).

Lesson 1: Employ More Positive Consequences

Applying soon, certain, and positive consequences is the most efficient and effective way to improve both behavior and attitude at the same time. But historically, safety-related behavior has been managed more often with negative than positive consequences. How do most organizations keep score for their safety performance? What outcome data are promulgated to recognize individuals and organizations with safety-excellence awards?

We live in a “click-it-or-ticket” culture that relies on negative consequences to control behavior—from the classroom and workplace to our homes, and when traveling in between. However, to achieve and sustain an injury-free workplace, people need to approach safety as success seekers (to gain positive consequences) rather than failure avoiders (to avoid negative consequences). It's not enough to understand this leadership lesson—we need to act on it. Hence, the next lesson.

Lesson 2: Benefit from Observational Learning

Observational learning is involved to some degree in almost all human

“HUMAN WELFARE WOULD BE IMPROVED BY MORE INTERPERSONAL DIPLOMACY AND CIVILITY, WIN-WIN COLLABORATION, ENHANCED WORK PRODUCTIVITY, AND LIFE SATISFACTION.”

behavior. In fact, observational learning is key to the dramatic success of behavior-based safety (BBS) at reducing workplace injuries. Consider a basic BBS process:

1. Coworkers develop a checklist of critical safe and at-risk behaviors on their job;
2. They use this checklist to observe each other while working and systematically record occurrences of safe and at-risk behaviors;
3. The observer shows the completed checklist to the worker, and the behavioral observations are discussed; *and*
4. The observation data are collected to identify and analyze trends, determine system determinants of risk-taking, and develop interventions to correct at-risk behavior and support safe behavior.

The connection to observational learning is obvious. Throughout the observation process, observers learn specific safe work practices to perform and at-risk behavior to avoid. A crucial component of this peer-to-peer observation process is behavioral feedback—the third life lesson.

Lesson 3: Become a Behavior-Based Feedback Coach

The letters of COACH say it all:

- “C” for Care;
- “O” for Observe;
- “A” for Analysis;
- “C” for Communicate; and
- “H” for Help.

Start with caring. Frame it around the idea, “Know I *care* and you'll care what I know. Because I care about your safety, I'm willing to *observe*

your work routine and note occurrences of safe and at-risk behavior.”

The observer jots down contextual factors that could be influencing the observed behavior—from situational conditions to anticipated behavioral consequences. Noting external factors that might influence particular behaviors reflects the *analysis* phase of coaching.

Then the observer *communicates* the information derived from *observation* and *analysis*. Analogous to humanistic therapy, both behavioral and situational factors are evaluated from the perspective of the person observed, and the feedback communication is supportive and nondirective. Feedback is not delivered to direct behavioral change but rather to empower personal acceptance and self-motivation for beneficial improvement.

Lesson 4: Use More Supportive than Corrective Feedback

Supportive feedback is the most powerful consequence for facilitating a learning process. The training manuals referred to above detail specific guidelines for delivering and receiving supportive feedback. Here, I review only the most crucial of these guidelines; each is self-explanatory and familiar to most readers.

To provide optimal direction, supportive feedback needs to be accepted and associated with the desired behavior. This happens when the feedback is timely (delivered soon after the target behavior), and meaningful (delivered privately and connected to a noble quality like leadership, integrity, or trustworthiness).

A positive reaction to supportive feedback increases the probability

STRATEGY

such feedback will be delivered again. Hence, the recipient of supportive feedback should neither deny nor disclaim such acknowledgment with a statement like, “No problem.” Rather, listen actively and show gratitude with a sincere “Thank you.”

Lesson 5: Embrace and Practice Empathy

Identifying with another person’s feelings, situation, and motive is considered “empathy,” and with empathy comes mutual understanding, appreciation, and acceptance of assignments and/or recommendations for change.

When observing another person’s behavior, try to view the situation from that individual’s perspective. When listening to excuses for at-risk behavior, see yourself in the same predicament. Imagine the defense mechanisms you might use to protect your ego or self-esteem. And when considering action plans for improvement, view various alternatives through the eyes of the other person.

Lesson 6: Manage Behavior and Lead People

Managers hold people accountable to perform desirable (e.g., safe) behavior and avoid undesirable (e.g., at-risk) behavior. They direct and motivate behavior with an external accountability system. In contrast, leaders inspire people to hold themselves accountable to do the right thing (e.g., to follow the safe protocol). They facilitate self-motivation by influencing internal person-states that bolster self-motivation.

Behavioral-science research has determined how self-motivation is influenced by three person-states—choice, competence, and community. Situational and interpersonal factors that influence these person-states are reviewed in the manuals mentioned above and illustrated in my 15-minute TEDx talk on YouTube. Simply Google “Scott Geller TEDx” or use the link <https://www.youtube.com/watch?v=7sxpKhIbr0E>.

Lesson 7: Progress from Self-Actualization to Self-Transcendence

Abraham Maslow’s “Hierarchy of Needs” is a popular theory of human motivation. The assumption: People are first motivated to fulfill their physiological needs—the survival requirements of food, water, shelter, and sleep. After meeting these needs, people are motivated to pursue safety and security.

Social acceptance needs are next—the desire to have friends and feel a sense of social support, belongingness, and community. After these needs are achieved, concern shifts to self-esteem—the desire to feel worthwhile, respected, and generally successful. Then, the individual can achieve “self-actualization.” Many have learned this to be atop Maslow’s need hierarchy, but it is not.

Shortly before his death in 1970, Maslow revised his renowned hierarchy and positioned self-transcendence at the top. At this level, people go beyond their self-interests and perform AC4P behavior, such as reporting a safety hazard or giving coworkers BBS feedback about their safe or at-risk behavior.

The connection between Maslow’s Hierarchy of Needs and various behavioral consequences provides insight for fueling self-motivation and sustaining the benefits of an effective behavior-improvement process. First, an individual’s position in the hierarchy determines what types of consequences are likely to be most reinforcing at a particular time. Without food, shelter, or sleep, for example, most people focus their behavior on satisfying these biological needs. But after this need level is satiated, human behavior is motivated by consequences linked to higher-level needs.

Higher-level needs implicate consequences related to self-motivation. Consequences that advance one’s sense of connection with others (i.e., community), for example, can satisfy one’s need for acceptance or social support. Those consequences that

support a person’s belief in personal competence connect to needs for self-esteem and self-actualization. And, reaching beyond the self-serving needs to help others through AC4P behavior contributes to satisfying the needs for social acceptance, self-esteem, and even self-actualization.

Bottom line: Behavioral consequences that foster perceptions of personal competence, self-worth, belongingness, and/or autonomy also fuel self-motivation and are, therefore, likely to have a most durable and nurturing impact.

In Conclusion

We’ve looked at seven evidence-based lessons from psychological science, which should be the foundation of any intervention implemented to improve the human dynamics of industrial safety and health. While these lessons have already been applied successfully to prevent injuries in numerous organizations worldwide, the potential for more beneficial applications of these lessons is huge.

I hope readers will translate these lessons into practical procedures to optimize quality AC4P engagement throughout their organizations and beyond. Human well-being is contingent on the number of individuals practicing these seven lessons to increase occurrences of AC4P behavior and inspiring others to do the same. **SD**



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Innovations that Inspire: Safety Training on a Roll

The days of subjecting employees to nap-inducing PowerPoint® presentations are over. Today's training providers are engaging employees with bite-sized learning and delivering products and methods that hit the mark.

By Gary Alexander

I read a lot about safety training, but I try not to do it before bed. That's because many ideas out there are stimulating enough to keep me up, sparking late-night thoughts about ways to help safety professionals reduce incidents through focused, memorable training.

Let's take a look at two great examples of diversity and creativity in today's training. One is by my company, ImprovLearning, developer of retention-based training systems, and the second features an innovative solution for reducing injuries at a shipbuilding facility.

ImprovLearning: Keep It Short and Make It Stick

Twenty-five years ago, we asked a question: How do you hold the attention of a classroom of adult learners for 6 hours while training on a dry topic?

To answer that question, I turned to creators of *The Improv*, the world-



REGGIE CUNNINGHAM

famous club and producer of the TV show *Evening at the Improv*, who are masters of the art of keeping audiences engaged. My team and I learned a great deal and built a highly successful driving-safety business acclaimed by industry, government, and military users.

Three million students and a quarter-century later, we asked a second question: *How do you ensure that trainees are not only paying attention but also that the material you present is retained and can be applied?*

The answer to this question is *RecallBOOST™*, a science-based delivery mechanism that promotes memory and mastery of microlearning content by timed reinforcement of key points over time.

According to a formula known as the Ebbinghaus Forgetting Curve, most adult learners forget more than 90% of content that's presented just once within 30 days. *RecallBOOST* interval reinforcement repeats critical information at recurring intervals to boost recall and retention.

Training + Retention = Competency

The ImprovLearning system is rooted in three big ideas:

1. Microlearning is the most effective antidote to short attention spans in today's adult learners.
2. Targeted, technology-driven reinforcement is proven to help employees remember safety-critical material and achieve competency in its application.
3. Content must be enjoyable and reminded to learners in order to create long-term retention.

Our course library contains more than 1,000 topics presented in bite-sized, device-enabled units. The content does not seek to replace annual Occupational Safety and Health Administration (OSHA) and site-based required training. Rather, it serves as an easy-to-consume, easy-to-track supplement to increase retention of your regular training.

“METAL DUCTWORK IS SIMULATED BY FOAM WEDGES THAT FALL FROM ABOVE ONTO TRAINEES' HARD HATS. WHILE NOBODY GETS HURT, THE EXPERIENCE IS MEMORABLE.”

Safety managers customize a curriculum for individuals, teams, and departments. Once a trainee completes a microlearning course, the *RecallBOOST* platform sends a series of timed and targeted e-mails that boost retention by asking questions reflecting the content covered in the segment. This drip approach keeps information in front of the learner for an extended period, creating muscle memory and driving retention.

Real-time reporting and dashboards give the training leader a bird's-eye view of who's learning what and who needs reinforcement. It also provides the administrator with the control to make needed changes.

Whether they're learning lockout/tagout methods or emergency response procedures, workers respond best to training content that is short, to the point, and consistently reminded.

To enhance enjoyment and user engagement, ImprovLearning addresses the boredom factor through gamification techniques, tasteful humor, and appealing content.

Course segments are short and can be consumed on a desktop or any mobile device at a time that's convenient for the employee, and they don't interfere with work tasks or leave a team shorthanded during a critical process.

Retention & ROI

Effective safety training does more than keep employees from hazards. It

also saves money. Interval reinforcement reduces the need for follow-up training, which reduces cost.

The approach—microlearning embedded with retention-boosting technology—also lets employees stay involved in the training by tracking their own progress. The reporting data can be used to encourage engagement as well. For example, you could offer incentives for employees who participate in extra modules. Or reward employees who score well, offering them opportunities to attend a safety conference or serve as a peer safety trainer.

With the cost of an average, non-fatal injury nearing \$36,000, and the cost of a fatality estimated at \$1.4 million, the importance of preventing workplace incidents cannot be overstated. We believe in the power of microlearning and retention boosting to reduce incidents and save lives.

Ingalls Shipbuilding: Innovative Training SPACES

When Ingalls Shipbuilding Safety Engineer Chris Buzbee says, “We have every major hazard class known to man,” he's not exaggerating. Ingalls' 11,500 employees are routinely exposed to radiation; slips, trips, and falls; hot work; overhead crane operations; confined spaces; and electrical hazards, among other risks.

Since 1938, Ingalls has produced warships for the U.S. Navy, Coast Guard, Marine Corps, and foreign customers.

STRATEGY

Located on a vast, 800-acre site in Pascagoula on Mississippi's Gulf coast, Ingalls is the state's largest employer.

In 2014, internal metrics revealed an uptick in injuries among employees who had been with the company 2 years or less. Buzbee and Product Trainer Preston Bosarge headed up a team looking into the problem. The primary issue they uncovered was a lack of situational awareness among new hires.

"In lay terms, it's called 'not paying attention,'" says Buzbee. When workers are in a dynamic environment with multiple processes and constantly changing conditions, losing concentration, even briefly, can be deadly.

"We tried to figure out why new hires had low situational awareness and what could be done to improve it

(basically the upper decks) intact. The partial structure was being used for production training. But the group led by Buzbee and Bosarge suggested it be restructured to also serve as a hazard simulator. With that, the Situational Perception and Conditions Evaluation Simulator (SPACES) was born.

At about 60 feet (ft) in length and 30 ft wide, the three-deck unit is impressive. It was retrofitted with electrical panels, ladders, false decking, and piping to create real-life hazards that are controlled by operators as employees make their way through 10 hazard identification stations.

Bosarge explains that the entire SPACES training experience takes about 4 hours, with the first 2 devoted to classroom preparation. There,

Five trained operators run two stations each, tracking employees' progress in finding the hidden hazards. Trainees are cycled through the stations, which take 2 to 4 minutes each to complete. Afterward, the operators reveal all the hazards, and employees benchmark their performance.

According to Bosarge, one of the chief benefits of SPACES is that it exposes craft workers to hazards they will likely encounter, as well as those more common to other workers. "Painters may not perform hot work," he says, "but this gives them a reference to identify and call out other hazards."

Full Steam Ahead

To date, between 5,000 and 6,000 employees, including Ingalls' senior management, have completed the SPACES training experience. Buzbee says that by the end of 2017, the site had seen a reduction of 66% in new-employee injuries. That translates into millions of dollars of savings in workers' compensation and related costs. Notes Buzbee, "The scoring data lets us surgically aim our training efforts and resources vs. taking a shotgun approach."

The success of the innovative project has earned it a number of awards, including a Safety Standout Award for Innovations in Safety Training from BLR, publisher of *Safety Decisions*, and recognition from the American Society of Safety Professionals (ASSP).

Why Wait?

If traditional training has failed your workers, it's time to widen your search. Consider approaches that will get the results you demand. Nap-inducing, generic PowerPoint modules just can't compete with innovative approaches that focus on specific hazards, engage employees, and address the needs and habits of today's adult learners. **SD**

Gary Alexander is CEO of ImprovLearning, a division of Interactive Education Concepts, Inc. Learn more at ImprovLearning.com or e-mail garya@improvlearning.com.

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"MOST ADULT LEARNERS FORGET MORE THAN 90% OF CONTENT THAT'S PRESENTED JUST ONCE WITHIN 30 DAYS."

by isolating the skill gaps and finding a way to fill them," recalls Buzbee. The team realized that new, mostly young, employees lacked hazard reference—the ability to tell when something was off or risky in the environment. They were also short on industrial aptitude more common in older workers.

"While they may never have learned to tighten a bolt, they can kill all the zombies on Xbox very efficiently," Buzbee says. Ideas for training solutions turned to digital engagement and kinesthetic, or hands-on approaches.

Fortuitous Fire

Ingalls had experienced a fire on a ship, which left only the pilot house

the focus is on recognizing hazards, as well as assessing the degree of risk, and what to do if a situation requires intervention.

Each station represents a specific hazard Ingalls' employees face, like hot work, overhead equipment, electrical risks, and open holes. An electrical panel may present simulated hazards like missing breakers, a missing flash panel, or a worn cord.

Disturbing noises and scary flashes mimic the results of failure to properly address the hazards. Metal ductwork is simulated by foam wedges that fall from above onto trainees' hard hats. While nobody gets hurt, the impact is memorable. Hazards can be changed depending on the needs of those participating.

6 Action Items from OSHA Guidance on Workplace Hazards

Learn steps for identifying and assessing workplace hazards gleaned from one of OSHA's top guidance resources. **By William C. Schillaci**

OSHA reports that *Recommended Practices for Safety and Health Programs* is one of its most popular guidance publications. The agency originally published this document in 1988 and issued the first update in October 2016. In that revision, OSHA stated that much had changed over the preceding 28 years in the nature of work, conditions in the workplace, employees themselves, and how employers and employees interact and work together to be productive in a safe and healthy environment.

Six Action Items

These changes are reflected in hazard identification and assessment, one of the recommended practices, which the guidance defines as “proactive, ongoing process to identify and assess hazards that are present or that could have been anticipated.” The guide offers the following six action items or steps that can be taken to implement the recommended practice. Each item is accompanied by several steps, with an emphasis on employee input and participation.

1. Collect existing information about workplace hazards.

- Collect, organize, and review information with workers to determine what types of hazards may be present and which workers may be exposed or potentially exposed.
- Input from workers may include surveys or minutes from safety and health committee meetings.

2. Inspect the workplace for safety hazards.

- Conduct regular inspections of all operations, equipment, work

areas, and facilities. Have workers participate on the inspection team and talk to them about hazards that they see or report.

- Document inspections so it can later be verified that the hazardous conditions are corrected. Take photos or video of problem areas to facilitate later discussion and brainstorming about how to control them and for use as learning aids.

3. Identify health hazards.

- Identify chemical, physical, and biological hazards, as well as ergonomic risk factors.
- The guidance notes that identifying and assessing health hazards may require specialized knowledge. Small businesses can obtain free and confidential occupational safety and health advice services, including help identifying and assessing workplace hazards, through OSHA's On-Site Consultation Program (<https://www.osha.gov/dcsp/smallbusiness/consult.html>).

4. Conduct incident investigations.

- Develop a clear plan and procedure for conducting incident investigations so that an investigation can begin immediately when an incident occurs. The plan should cover items such as who will be involved; lines of communication; materials, equipment, and supplies needed; and reporting forms and templates.
- Conduct investigations with a trained team that includes representatives of both management and workers.
- Investigate close calls/near misses.
- Identify and analyze root causes to address underlying program

shortcomings that allowed the incidents to happen.

- Communicate the results of the investigation to managers, supervisors, and workers to prevent recurrence.

5. Identify hazards associated with emergency and nonroutine situations.

- Identify foreseeable emergency scenarios and nonroutine tasks, taking into account the types of material and equipment in use and the location within the facility. Scenarios that may be foreseeable include fires and explosions, chemical releases, hazardous material spills, start-ups after planned or unplanned equipment shutdowns, and nonroutine tasks such as infrequently performed maintenance activities.

6. Characterize the nature of identified hazards, identify interim control measures, and prioritize the hazards for control.

- Evaluate each hazard by considering the severity of potential outcomes, the likelihood that an event or exposure will occur, and the number of workers who might be exposed.
- Use interim control measures to protect workers until more permanent solutions can be implemented.
- Prioritize the hazards so that those presenting the greatest risk are addressed first.

OSHA's *Recommended Practices for Safety and Health Programs* can be found at www.osha.gov/shpguidelines/docs/OSHA_SHP_Recommended_Practices.pdf. **SD**

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Finding the Right Leader to Drive Safety Participation

What do the safety leaders at the safest companies in the world all have in common? Amazingly, very few are safety experts. Learn how to find the perfect leader for your safety culture. **By Josh LeBrun**

Does your safety leader need to be a safety expert? Putting a safety expert in charge of building your safety culture may actually hold you back.

Being the safety nerds that we are, we set out to learn what the leaders of the safest companies in the world had in common. First, we analysed our big data set of over 250 million leading and lagging indicator data points over a 3-year period. From that research, we discovered that companies in the top quartile of safety participation

have incident rates 3.5 times lower than the bottom quartile.

Next, we wanted to know how these high achievers built their cultures, so we conducted qualitative interviews to discuss their respective journeys and identify commonalities in each.

We discovered that they took 5 deliberate steps:

1. **CEO commitment.** The chief executive officer (CEO) commits to safety, sincerely and publicly.
2. **The rise of the safety leader.** The CEO appoints and empowers a leader to drive change.

3. **Employee buy-in.** The safety leader earns buy-in from frontline employees.
4. **Safety reflex.** Managers quickly respond to the new safety activities from the front line.
5. **Safety velocity.** The company expands the program to other departments or sites.

Organizations that successfully transition through all 5 steps are able to build what we call a High Participation Safety Culture. The second step is crucial and sets everything else up to succeed. This places the utmost importance on finding the right person to drive organizational change.

But, how do you find this leader?

Who Should Your Safety Leader Be?

Your first instinct may be to hire or promote someone with a strong background in safety. That may be the wrong move.

The most important skill your safety leader can have is the ability to drive organizational change. This role requires a change agent, not a safety expert.

We recently spoke with Steve Chaplin, the vice president of health, safety, and environment at EllisDon. He drives the safety culture at a world-leading construction and building services company, yet he openly states, “I am not a safety expert. In fact, I used to be one of the most unsafe guys around, I’m sure.”

He describes himself as “an operational leader that adds value to the business through health and safety and environmental performance,” and that’s the type of background your safety leader should have.

If such leaders exist in your organization, promote them. If not, you will have to recruit them. However, your new safety leader may be hiding in plain sight within your organization.

Remember, a background in safety is not compulsory. It’s easy to hire someone with a strong background in

change management and then train him or her in safety. It's considerably harder to go the other way around.

Perhaps you already have an A-player in your organization, whom you brought on to turn around a struggling department or division. This person's success in that role qualifies him or her to be your safety leader. The A-player has already proven he or she can evaluate the workflow of a department and change things for the better.

What Skills Should a Safety Leader Have?

A strong background in safety is a "nice-to-have." But a background in change management is a must-have.

Your safety leader is not a "safety cop" who reminds your frontline workers to wear their personal protective equipment (PPE). He or she is a change agent who cultivates a safety culture where all employees instinctively wear PPE without a second thought.

The safety leader needs to be able to effectively communicate with the C-level of your organization. This means making the business case for the return on investment of safety and earning buy-in from the highest level.

Your new culture will likely require new tools, which means your safety leader should have experience leading a large procurement operation where he or she:

- Chooses the right solution or vendor;
- Presents the business case to the C-level and stakeholders; *and*
- Secures the funding/budget to invest.

On top of making the business case for safety to the C-level, your safety leader also needs to connect with frontline employees. These are the people who carry out the daily activities that create a High Participation Safety Culture, so the safety leader needs to earn their buy-in.

Your leader needs to convey both the holistic and financial impact of a better safety culture to the front line:

- **Holistic:** A safe workplace means everyone goes home safely every single day.
- **Financial:** A better safety record means the organization can land more contracts, which protects job security.

Safety leaders also need to ensure that managers have the tools and systems they need to respond to a new influx of safety activities from the front line. If managers are overworked and can't respond to safety activities (e.g., hazard identification or inspections) in a timely fashion, frontline workers will grow frustrated, and you will lose their buy-in.

What Does Your Safety Leader Need to Succeed?

We mentioned that the safety leader is appointed and empowered in the second stage of building a High Participation Safety Culture. This empowerment comes directly from the CEO.

The CEO of your organization needs to publicly commit to safety as a priority and publicly back this leader as the "face" of this new safety initiative. In doing so, they put their own reputation on the line.

Going back to the example of Steve Chaplin at EllisDon, he received a very public show of support when his CEO asked him to open their Annual General Meeting (AGM). The CEO introduced Steve as the head of safety, then sat down and literally let safety take center stage to open their AGM.

"A STRONG BACKGROUND IN SAFETY IS A "NICE-TO-HAVE." BUT A BACKGROUND IN CHANGE MANAGEMENT IS A MUST-HAVE."

The CEO also needs to ensure that the safety leader has the power to enact organizational change with a seat at the executive decision-making table, right next to the leaders from sales, marketing, and operations.

Putting a safety expert in this role could be the wrong move. This person could have extensive knowledge of the logistical and legislative side of safety but may not know how to make the business case for safety. Your leader needs to be able to communicate with the C-level yet earn respect from the front line.

Most importantly, your safety leader needs to recognize that a strong safety culture isn't "achieved." It's "maintained." He or she needs to spearhead the changes that move you in the right direction and then ensure that these changes become the new norm and that you can sustain this culture over the long term. **SD**



Josh LeBrun is President and Chief Operating Officer of eCompliance, where he is responsible for strategic direction and day-to-day operations, including finance, legal, administration, marketing, and sales. He is considered a thought leader on the business value of safety management and participation-based safety. Learn more at www.ecompliance.com or e-mail jlebrun@ecompliance.com.

Reprint: SD_1018-6

Safer in Numbers: Team, Peer, and Personal Safety Improvements

By Ray Prest

There's never any shortage of debate in the safety industry. Just take a look at recent discussions at the American Society of Safety Professionals (ASSP) conference about the relative merits of behavior-based safety

(BBS) and human and organizational performance (HOP).

In many ways, this debate is the crossroads of new and old thinking, with both sides attempting to provide answers to a complicated problem: How do we make workplaces safer for people?

Sometimes old things are new again with a slightly different perspective, and sometimes new things are heavily rooted in the past. In recent years, HOP is being discussed as a new philosophy for managing human factors in safety through a team-based approach to examining



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Developing an Efficient and Effective System by Aligning and Maximizing Safety Improvement Strategies



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and designing safer systems and working environments. While the term is newly popularized, many of the concepts have been around for decades.

In a nutshell, a HOP-based approach creates and supports frontline learning teams—one of the five disciplines outlined by Peter Senge in 1990. It also prioritizes looking at deviations from systems and processes and then making adjustments to these systems. The goal is to make production processes more friendly for people and to build room in the work environment for human error.

BBS has been around for a long time. Every few years, a magazine headline asks whether BBS is dead, and the answer is always ... well, debatable. The reality is that BBS is an effective and active process that many companies still use to drive safety engagement and improvements, though its overall use is in constant flux.

The BBS strategy is to rely on others to provide feedback and guidance on personal behavior in their area of work. Various BBS programs espouse peer-to-peer communication and one-on-one observations and feedback systems. These are all designed

around the notion that another set of eyes can offer useful insight.

BBS won't die for good reason—its basic philosophy has been proven to work for over a century. For example, in the 1900s, Frank Gilbreth developed an observation and feedback system to watch bricklayers perform their job so that he could improve the efficacy and safety of his workers. He documented his findings in *Motion Studies*, a book published in 1911.

What's been lost in the debate between HOP and BBS is that the two approaches aren't mutually exclusive. Finding a way to deploy them in unison will help us get better, solve problems, and make improvements that will prevent injuries and save lives.

In fact, there are several ways that HOP and BBS can strengthen each other—and a few notable gaps exist even when the two are used in tandem. HOP and BBS focus heavily on making improvements to the work environment to account for human factors and prevent negative consequences when errors naturally occur. But human factors are best managed by humans, and each person needs to think about risk in real time and make adjustments accordingly.

The biggest gaps with BBS and HOP are the frequency of improvement opportunities and the fixed areas of focus. HOP teams will eventually cover most areas of the workplace, and over time, BBS observers will have

“IN A NUTSHELL, A HOP-BASED APPROACH CREATES AND SUPPORTS FRONTLINE LEARNING TEAMS—ONE OF THE FIVE DISCIPLINES OUTLINED BY PETER SENGE IN 1990.”

“ENGAGING THE ENTIRE WORKFORCE IN HUMAN FACTORS IMPROVEMENT UP FRONT WILL ALSO BOOST THE QUANTITY AND QUALITY OF LEADING INDICATORS AS YOU MOVE FORWARD.”

a chance to speak with most workers about their work area. But there are huge gaps between these interactions. A lot of things can change for employees over the course of a shift. And what about when they leave the facility and drive home, where they won't have teams and peer observers to help them?

This is why BBS and HOP need to include personal safety skills training as the third leg of the stool. Each person needs to be able to think about human factors, errors, and systems solutions within the context of the work or task he or she is doing at any particular moment.

Worker safety depends heavily on a personal understanding of risk. People need the knowledge, skills, and habits to understand and think about how human factors like rushing, frustration, fatigue, and complacency increase risk, breed injury-causing errors, and cloud decision-making. This is especially true if you want to capture and leverage near-miss and Safety-II scenarios to identify variability within normal work where everything is going right. And doubly so if you want to prevent errors before they happen rather than manage them as they occur.

Common Denominators and Best Practices for Safety Improvement Strategies

To be a truly safety-conscious company, HOP, BBS, and human factors awareness need to intersect. If frontline workers have an understanding of human factors, they will be able

to offer not only more but also more meaningful input to the HOP team or observer. And with more and better input from frontline workers, those with specialized knowledge about engineering solutions can make additional and more accurate improvements.

Ideally, individuals, observers, and teams will have a shared understanding of risk and a framework for consistent thinking and communications so that everyone can understand and apply them in their work areas and personal lives.

HOP-style teams will likely come up with more robust solutions to problems within their shared pool of knowledge. BBS will help get quality outputs from the observations by recording, tracking, and reporting the improvement suggestions to management. And nothing can compare to the number of inputs available to individual workers throughout the day.

It's like combining two different approaches that parents take to protect their kids—safety in numbers and self-defense classes. Groups help with safety, but individuals also need to be able to look out for themselves.

You also need a strong safety-focused culture that supports all three of these activities and an effective, nonpunitive communication platform to ensure best practices and improvement strategies are disseminated to all staff, work groups, and sites within your organization.

Measuring the success of any improvement strategy is also critically important. Engaging the entire

workforce in human factors improvement up front will also boost the quantity and quality of leading indicators as you move forward.

Supervisors need to understand human factors so they can temper the flow of work when they observe human-related risk and also predict risk before it occurs. Furthermore, you need senior management to commit time and money for training and to allow room for regular conversations and reflections. Company leaders also must set expectations for everyone, monitor accountability, and ensure that the physical improvement suggestions are implemented.

If you have an improvement mindset going into any debate, you'll have more opportunities—you'll see discussion points as items you can add or subtract from your current state without having to sacrificially choose this over that, zigzag from one thing to the next, or get caught up in who's right or wrong.

The key is to recognize that safety philosophies like HOP and BBS aren't an either/or proposition. There's no need to get caught up in which one is the best option, because they play different, but complementary, roles.

When combined with human factors training, the trio can actively reduce the risky environments, behaviors, and states that put workers in danger. If all three are implemented properly, organizations will be better and safer by leaps and bounds. **SD**



Ray Prest is Marketing Manager at SafeStart, a family-owned company that has provided safety training solutions to industry, education, and the military for over 40 years. You can learn more and read Ray's recent articles, blog posts, and safety guides at safestart.com/ray.

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Fentanyl Risks Create Extreme Challenges

The dangerous synthetic opioid has become a particularly worrisome hazard for first responders.

By Mark Nicholls

In May 2017, an East Liverpool, Ohio, police officer made a seemingly routine traffic stop. During the stop, he noticed something on his uniform and brushed it off. Minutes later, he started suffering symptoms consistent with a drug overdose, and only the quick reactions of other first responders prevented the outcome from being much worse. It took four doses of naloxone—you might know it better by its brand name, Narcan—to revive him.

The culprit? Fentanyl, a devastatingly potent synthetic opioid that is anywhere from 50 to 100 times as powerful as heroin and capable of being absorbed through the skin.

Sadly, this wasn't an isolated incident. A paramedic in Fairborn, Ohio, required Narcan treatment after suffering secondary exposure while treating a fentanyl overdose victim. Four Indianapolis, Indiana, first responders had to be rushed to the hospital after an overdose victim dropped fentanyl on the floor of the ambulance they were in. In Haverhill, Massachusetts, five first responders fell ill and had to be treated for overdose-like symptoms after investigating the scene of a deadly fentanyl overdose.

PRACTICAL TIPS

These cases—combined with countless others from all over the United States—put in perspective just how potent and dangerous fentanyl and its analogs can be in illicit form. Consider this: According to the Centers for Disease Control and Prevention (CDC), there were just shy of 10,000 overdose deaths from fentanyl or fentanyl analogs in the U.S. in 2015. The number skyrocketed to more than 20,000 in 2016, the most recent year for which we have complete data. There was some hope the coverage of that spike and increased awareness of the dangers of fentanyl might slow or stem the tide of the drug's use, but available data at the local level suggests that hasn't been the case.

The fentanyl epidemic puts first responders and other professionals who may be exposed to fentanyl at increasing risk and puts pressure on their employers to provide them with adequate protection. With fentanyl—so potent in small doses and dangerous even to the touch—that can mean everything from adequate hand protection to full-body personal protective equipment (PPE).

Why Fentanyl Is Different

Other drugs pose risks for non-users, but we've never seen anything quite like fentanyl. Enough fentanyl to trigger a dozen overdoses can fit into a pouch the size of a tea bag. Because it is so powerful, fentanyl typically is manufactured and transported in small quantities, making it difficult to track and police. That potency also makes it relatively affordable, as users need just a small amount to get high. It also acts so fast the body often doesn't have time to expel or process it, leading to the potentially deadly shutdown of critical organs and bodily functions.

Of course, the human body is smart and has other defenses. For example, it reacts to fentanyl the same way it reacts to any drug—it protects itself by building up a tolerance. Over time, users have to increase their doses to



experience the same effect. Therefore, first responders finding an overdose victim often are at risk of coming in contact with quantities that present great danger to anyone without that tolerance. Adding to the risk, the drug maintains its potency even when found in bodily fluids—a common occurrence in overdose situations where the victim has vomited. Accidental inhalation is the most common cause of unintended overdose symptoms, but absorption through exposed skin happens as well.

It's not just first responders at risk. Health professionals, especially in emergency rooms, come in contact with overdose victims, friends and family of those victims, and paramedics who could be unwittingly carrying fentanyl on their clothes. Janitorial staff cleaning hotel rooms and public restrooms face potential exposure. Laboratory technicians examining evidence are at risk. Even landlords who rent to fentanyl users have any number of opportunities to come in contact with the drug. Anyone who may potentially be at risk should at least be educated on the danger of fentanyl exposure and have access to appropriate protective equipment.

Avoiding an Accidental Overdose

There are steps someone at risk of accidental exposure to fentanyl can take to avoid contact with the drug.

Wearing appropriate PPE is critical, and gloves tested for fentanyl protection are the bare minimum. As fentanyl becomes more and more widespread and dangerous, glove manufacturers are developing new products that have been tested and proven to provide protection against fentanyl and, importantly, against the combination of fentanyl and gastric acid (as found in vomit). When choosing gloves to protect workers against fentanyl exposure, this is an important consideration.

But gloves are just the beginning. For anyone in higher-risk environments—police, firefighters, paramedics, crime scene investigators, and some laboratory technicians, for example—more comprehensive body protection is warranted. In fact, the CDC advises anyone entering an area where fentanyl might be present to proceed with an abundance of caution and to assume the worst about the situation. This translates to full-body protection, in the form of hazardous

material (hazmat)-type suits, complete with masks that filter any airborne particles to prevent inhalation.

As with hand protection, it's important to choose body equipment that has been appropriately tested. Simply testing the material in the suit isn't sufficient. The entire piece of equipment should be validated for protection against fentanyl. Features to look for include taped seams and storm flaps, thumb loops, and proper fit—including the respirator and hood.

Other features to consider when selecting appropriate PPE:

- **Comfort and performance.** This can get lost in discussions about safety, but it's critical. If the PPE being used infringes on the ability of the worker to do a job effectively, it increases the likelihood that the worker will remove the PPE. Safety is paramount, but these suits and gloves must also allow workers to perform their jobs and remain comfortable while doing so.
- **High quality and reliability.** Acceptable quality level (AQL) scores for these types of PPE range anywhere from 4.0—meaning up to 4% of a set of gloves could include a defect—to the current industry standard of 0.65. The lower the AQL, the safer the equipment.
- **Certification and test data.** This equipment should be tested for permeation, fabric filtration, and inward leakage. Understand these measurements and compare to find PPE that scores highly across the board.
- **Durability.** Many of the environments where fentanyl is found present other challenges, such as tight spaces or sharp edges. This presents plenty of opportunities for protective suits and gloves to be compromised with tears and cuts. Choose PPE that will hold up. Options with some degree of elasticity are recommended.
- **Barrier properties of the fabric.** Materials used in body protection should protect not just against

solid particulates but also against liquid and gas exposures. Illicit fentanyl is most common in solid or liquid form, but it can be heated to create a gas with the same dangerous properties.

- **Gastric acid protection.** Again, this is critical in a fentanyl overdose situation. There are a few gloves on the market today that meet or exceed the National Institute for Occupational Safety and Health (NIOSH) recommendations for safety, allowing no permeation of either fentanyl or gastric acid for greater than 240 minutes. These are the only gloves proven to provide comprehensive protection in these overdose events.
- **Double dipped, dual color.** Contrasting interior and exterior colors make it easier to detect breaches or to notice the presence of dangerous substances on the surface of the PPE.
- **Nonstick formulation.** This eliminates troublesome sticking with tape and adhesives that can complicate and delay aid for the victim.
- **Extended cuff.** Anyone who has worn gloves in a work environment knows the areas that tend to

collect the most dirt and grime are the wrists and forearms. Gloves with extended cuffs provide protection further up the arm.

Beyond PPE

Of course, PPE is just part of the solution—there are also best practices for working around fentanyl. The CDC has recommended that all on-site testing of drugs be stopped because performing the tests can be dangerous. Instead, the CDC advises on-site personnel to treat the substance as unknown and operate assuming it is the strongest version of the drug. In the event of an exposure, take steps immediately to prevent further exposure—move to a ventilated area, wash the exposed area quickly, and carefully remove and properly clean or dispose of clothing or PPE. One important note on cleaning: Experts do not recommend cleaning with alcohol sanitizers. Studies have shown these actually tend to act as a carrier and can transfer fentanyl instead of removing it safely.

It's also worth mentioning that the CDC recommends first responders and health professionals always keep Narcan handy—and they have started recommending they double or even triple the dosage to account for the prevalence and potency of fentanyl.

As PPE manufacturers, it is our responsibility to continue to expand the options for fentanyl-resistant PPE to ensure there are solutions that meet the needs for all workers in all environments. We also must work with employers and safety personnel to ensure they understand the risks and the solutions available to help keep workers safe. **SD**

Mark Nicholls is the Chief Commercial Officer Americas for Ansell, where he oversees execution and service delivery for Ansell's businesses in the United States, Canada, and Latin America. For more information, visit ansell.com.

Reprint: SD_1018-8



Stop the Slip at Your Company!

We take a fresh look at some very old hazards—slips, trips, and falls—with the help of an expert who has spent a decade studying them. **By Justin Scace**

Slips, trips, and falls are a perpetual thorn in the side of environment, health, and safety (EHS) professionals. The hazard is so complex (and persistent across all types of industries) that it can be very difficult to manage. However, awareness is key—and to help boost awareness with strategies for fall prevention, we're talking with Thom Disch, author of *Stop the Slip: Reducing Slips, Trips and Falls, the #1 Cause of Emergency Room Visits*.

In addition to authoring *Stop the Slip*, Disch is the CEO of Handi Products Inc. and owns several companies and nationally known brands, including Handi-Ramp, PetSTEP International, and Industrial Toolz, Inc. He is a leading expert and speaker on slip, trip, and fall injuries in the United States and has been compiling statistics and stories related to this health-care crisis for 10 years.

Disch notes that there are two big factors that result in a slip, trip, or fall: The *why* of the fall (i.e., the mental or psychological side) and the *where* of

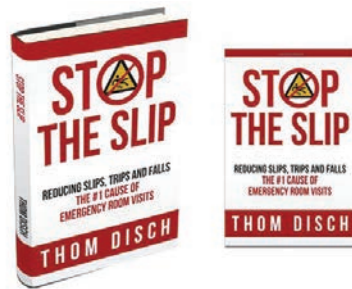
the fall (the physical side). But how do these variables interact, and where does the single biggest risk lie? "I really like this question because it brings out the complexity of the fall problem," says Disch. "When you slipped and fell on that spill, was it because someone created a problem and didn't clean up after themselves, or was it because you were on your phone and weren't paying attention to your path? Both factors contributed, and if either was eliminated there's a good chance the fall and possible injury would be avoided."



This is why Disch strongly believes that the very first step in preventing fall injuries is simply increasing awareness. “Whenever I give a talk on fall prevention, many people come up to me afterward and say that just hearing about the problem has made them safer,” he says.

It’s fair to say that EHS professionals may never be able to completely eliminate slip, trip, and fall hazards—but there are steps they can take right away to minimize the chance of a fall in their workplaces. Here are three big things recommended by Disch:

1. **Put someone in charge of slip and fall prevention.** “If you have a large facility, you can split the space into smaller sections and assign area responsibilities to key individuals,” suggests Disch. “Schedule regular meetings with the fall prevention managers so that they can exchange their ideas and success stories.”
2. **Set up a schedule of fall prevention communications to remind everyone about the importance of fall prevention.** “This memo or newsletter can include info on slips, trips, and falls in your location, but can also include fall prevention ideas for when employees are *away* from work,” Disch says. “Report on interesting studies or statistics, and there may even be room for a section on famous people that have suffered a fall injury.” If you’re looking for ideas on content, STOPTHESLIP.com and its blog have a great deal of current information.
3. **Develop a fall database that lists the details behind all falls that happen.** “This is not limited to *fall injuries* but *all falls*,” clarifies Disch. “After all, fall injuries only happen after a fall! Understanding falls and where they happen will help you identify the next high-risk area for a fall injury.” Disch does warn that this may be more of a challenge than you think—employees may be reluctant to



report falls because they think it’s embarrassing or that the fall may otherwise reflect poorly on themselves. “You can always try a form of anonymous reporting to increase the report rate,” he says.

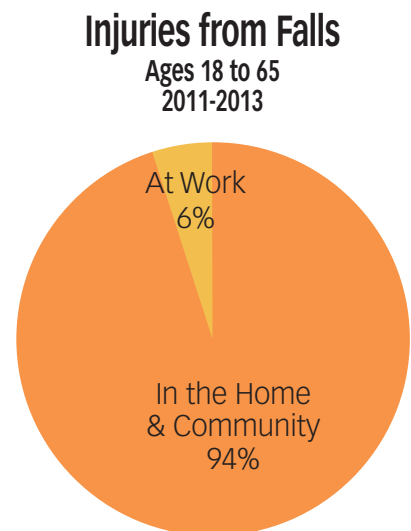
Slips in the Home vs. Slips in the Workplace

There are many differences in the risks and preventive measures for slips, trips, and falls in the home vs. in the workplace—but they’re not the kind of differences you might expect.

“There are some surprising findings that we discovered when we compared fall injuries occurring at work to fall injuries at home and in the community,” says Disch. After comparing the data collected by the Bureau of Labor Statistics (BLS) that track injuries and deaths on the job to the data on fall injuries collected by the Centers for Disease Control and Prevention (CDC), Disch says he discovered that among people aged 18 to 65 (typical workforce age), 6% of all fall injuries happen while at work. That number by itself seemed low, and Disch determined he needed to put it into perspective. “We calculated the amount of time people spend at work,” Disch explains. “We only looked at times when people were at risk of falling, so we adjusted for the time when people are asleep and the amount of time people spend driving. We discovered that people on average spend 27% of their time at work.”

The question then became, If we spend 27% of our time at work, why are only 6% of all fall injuries happening at work? “My expectation was that fall injuries would be higher for people when on the job,” admits Disch. “Many occupations have an inherent greater fall risk—just think of restaurant or construction workers. But this deeper look shows we are actually safer at work. Businesses are motivated to make us safer at work. It is pure and simple finances. When they have a safer work environment, their workers’ compensation costs go down, employee productivity goes up, and even the risk of OSHA audits and fines go down.”

Since businesses have rules, processes, and people in place to prevent fall injuries, this data now makes sense. But what about that 94% of fall injuries that occur off the job? “At home and in the community, we have to act as our own safety manager,” Disch says, which naturally might give EHS professionals the advantage ... but not so much the rest of the employees at the organization. “It should come as no surprise that a professionally trained safety manager who deals daily in well-thought-out safety rules



Data Sources: Bureau of Labor Statistics; NEISS All Injury Program operated by the Consumer Product Safety Commission (CPSC). National Center for Injury Prevention and Control, CDC using WISQARS™

PRACTICAL TIPS

and procedures will create a safer environment than we will.”

Indeed, it can be tricky to incorporate fall prevention into everything else that we pack into our busy lives. But one of the simplest things we can do to make our homes safer is to learn from our work environments. “Talk about fall prevention with other family members, reduce clutter, and fix slip hazards when they are identified,” Disch recommends.

The Ageism Question

The data collected by Disch over a decade show that the risk of falling is the same across age groups. Older people, however, have a greater chance of dying from a fall.

In a workplace with older employees, some safety professionals may feel caught between addressing this greater fatality risk and running into perceived age discrimination issues while assigning job tasks that may incur a greater risk for a fall. Disch says that it is natural that the differences between people will limit their ability to do certain tasks safely, and in the end, it’s up to the EHS pro to objectively weigh the risks.

“The fact is that when we are younger our bodies have the ability to recover more quickly, and as we age, our ability to recover from injuries slows down,” says Disch. “That has



Thom Disch

led me to say that when we are young and fall we bounce, but when we are old and fall we break. We cannot tolerate discrimination, but we also do not want to see anyone injured on the job. In my mind, safety should always be the first priority, and I don’t think there are any hard and fast rules for managing this, ultimately. I would let common sense guide these decisions.”

The Financial Costs

As you might expect, the financial costs for businesses that fail to adequately consider slip, trip, and fall risks are potentially staggering. “First of all, the overall costs attributed to falls is shocking,” says Disch. “The CDC

estimated that in 2010, falls cost the U.S. economy over \$150 billion in just medical costs and lost wages. To put that number in perspective, it is over 1% of our gross domestic product.”

In the workplace, fall injuries result in a wide variety of costs, with the readily apparent ones including increased workers’ compensation costs and lost productivity from the injured individual. However, the hidden costs can be much higher. Here are some examples supported by Disch’s research:

- **Lost productivity from workers who were *not* injured.** “This can be in the form of employees having to stop and help the injured worker, the cost of the paperwork required to manage the injury, and the cost to find, hire, and train a replacement,” says Disch.
- **Overtime and supervisory costs.** “There may be additional overtime that is incurred to fill in for the missing worker,” Disch points out, “And supervisor time may also be shifted into this area to fill a gap.”
- **Trauma beyond the physical.** Disch notes that “The injured employee may have unreimbursed expenses and may be affected psychologically by the fall injury.”
- **Morale and reputational effects.** Depending on the circumstances of the accident and how it was handled, employees companywide may be affected by a fall injury—especially if the situation was handled poorly. “This could result in lower employee morale or could even affect the reputation of the company,” says Disch.

With so much at stake, complacency is the biggest enemy. EHS professionals must stay aware of the risks posed by slips, trips, and falls—and ensure that employees at their organizations are doing the same! For more information, visit stoptheslip.com.

Justin Scace is the senior editor of Safety Decisions. jscace@blr.com

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Detecting Recent Marijuana Use—Is Oral Fluid Testing the Solution?

Increased legalization of marijuana presents a unique challenge for organizations. Learn how oral fluids are changing the drug testing world.

By Brian Feeley

In the age of legalized marijuana, employers are increasingly concerned about a future where new employees are impossible to come by due to marijuana use. Recently, Caesar's Entertainment said the casino chain will no longer test employees for marijuana unless they are working in transportation. Are other employers planning to follow suit, or can the drug testing industry evolve to fit the employers' needs in these changing times?

With record drug use and legalized marijuana spreading from coast

to coast, employers are concerned and confused about their drug testing policies. Methods that have traditionally been used are now being questioned as the needs of the industry have evolved with the burden of legal marijuana. Increasingly, employers need to focus on recent drug use rather than historical use. Laboratory-based oral fluid testing meets this need and provides employers with the peace of mind that they are legally compliant while still deterring drug use in their workplace.

The Cost of Running a Safe Business in a New Era of Drug Abuse

Nationwide, the cost of substance abuse is estimated to be \$600 billion annually—by 2020, substance abuse is expected to surpass all major diseases as a major cause of disability worldwide. For businesses alone, the annual estimated cost of drug abuse is approximately \$193 billion:

- \$120 billion in lost productivity;
- \$11 billion in healthcare costs; and
- \$61 billion in criminal justice costs.

Keep in mind that these are only the “measurable” costs, as there is no accurate way to measure the true costs that drug abuse can have on a workplace. Some of these costs include (but are not limited to):

- Poor concentration and lack of focus;
- Lowered productivity or erratic work patterns;
- Increased absenteeism;
- Carelessness, mistakes, or errors in judgment;
- Disregard for safety for self and others—on-the-job and off-the-job accidents; and
- Increased driver accidents.



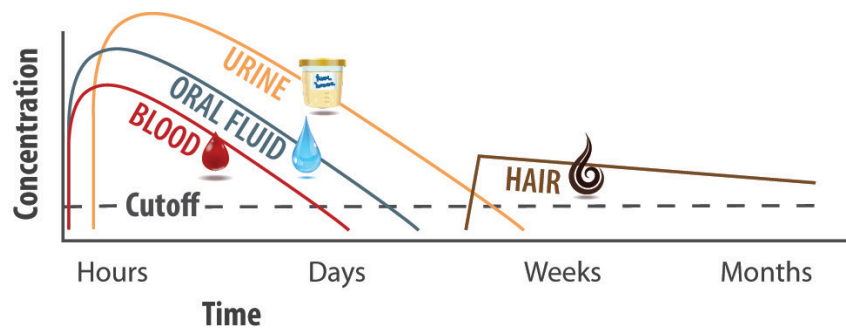
A recent Substance Abuse and Mental Health Services Administration (SAMHSA) report found that 27 million Americans have used illicit drugs in the past 30 days. Of current drug users, approximately 76% are employed either full- or part-time. The facts are clear—drug use in the workplace negatively impacts an employer’s bottom line, and no single industry is spared the costs.

While a comprehensive drug and alcohol testing program cannot completely stop substance abuse in the workplace, it has and will continue to deter employee drug use, lessening the likelihood of abuse on the job and possibly related accidents in the workplace. Employers wanting to provide a safe, drug-free workplace can use one of several methods, including urine, oral fluid, hair, and even blood testing.

Employers and Marijuana

According to the 2018 Employer Drug Testing Survey from the Current Consulting Group, 67% of employers are concerned about marijuana in the workplace, citing a myriad of concerns, the most prevalent being safety and increased costs. Almost 12% of surveyed employers cited confusion about the legality of testing for marijuana in the state(s) in which they operate. As marijuana is a federally prohibited substance and state laws vary widely, employers are often confused about whether they are still permitted to test for marijuana.

To be clear, at the time of this writing, no employers in the United States are outright prohibited from testing for marijuana. However, the level of confusion that employers are experiencing is staggering. With this confusion comes the erroneous thought that to make things easy, employers should simply stop testing for marijuana, thus eliminating all legal risks while streamlining employment processes. But rather than reducing risk, employers that remove marijuana from their testing panel actually put themselves at greater liability,



Windows of Detection

negating one of the key reasons drug testing has become such an integral part of screening applicants and employees.

With the legalization of medical and recreational marijuana, employers are becoming increasingly concerned about the impact of marijuana in the workplace and, in particular, detecting historical or longer-term use versus very recent use. More frequently, employees are using the defense that they have not recently used marijuana after they return a positive drug test via a traditional testing method, such as urine. Employers are being driven to court more frequently, asked to defend their policies and testing methods, and those employers using urine testing (and other methods) find it difficult to prove that such a test only showed very recent use.

Oral fluid testing, on the other hand, provides employers with the peace of mind that if a test is positive for marijuana, the use was recent, and those individuals could very well be presenting a safety risk in the workplace.

Why Recent Use Matters

One of the main questions posed by employers when it comes to marijuana testing is how to test for “impairment” rather than habitual use. With rising marijuana popularity comes increasing problems with traditional testing methods, such as urine and hair. When using these methods, employers are not able to differentiate between an employee who is under the influence because of a lunch break toke or if the positive test result is due

to ingestion from a party 2 weeks ago. As such, many employers are concerned about receiving a positive test result even if an employee/applicant isn’t actually “impaired” at the time of the test, opening themselves up to potential legal action.

As more states enact marijuana discrimination and/or legalization laws, some of them contain language about “impairment”—meaning that an employer must be able to prove impairment if it wants to act against a registered medical marijuana user. While no single testing method is guaranteed to provide absolute proof of impairment, one of the best ways to show that an applicant or employee is potentially under the influence of marijuana is to use a method known to detect recent use. See the illustration for a concept of how different testing methods generally compare as they relate to their window of detection. Hair testing is ideal for identifying habitual drug users, with a window of detection that shows long-term use over many months, but it cannot easily differentiate recent drug use from long-term use. Urine testing requires an observed collection and indicates use over the past few days and sometimes weeks, depending on a number of factors. Blood testing, which is probably the most expensive and inconvenient testing method, does provide highly accurate and recent use results, but because it requires a phlebotomist or trained healthcare professional to draw blood, it is not very practical or

PRACTICAL TIPS

cost-effective for regular use in workplace testing.

Oral fluid testing is a well-established, proven methodology that provides employers with many advantages, including ease of collection; cost savings; and accurate, legally defensible results. However, the advantage that is most relevant here, and is often overlooked, is the short window of detection one gains using oral fluid testing. Having a short window of detection allows oral fluid testing to detect recent use, rather than what an individual may have used a week or a month ago.

With increased marijuana use, the drug testing world must change as well, and more employers want to focus on testing for recent use using a reliable, convenient testing method that not only deters marijuana use on the job but also legally protects the employer.

At the time of this writing, no states have provided guidelines for employers as to what would quantify impairment and allow them to act in those states that have such a legal provision. Until guidelines are provided defining what constitutes impairment, employers are left with trying to find methods to prove impairment (e.g., looking at recent use only) that will both preserve workplace safety and protect them from possible legal action.

Marijuana and Oral Fluids

Employers wishing to detect recent use of marijuana, thereby ruling out the potential defense of “I haven’t used marijuana in the past week” should consider lab-based oral fluid testing as a practical solution. With positivity rates double those of urine, lab-based oral fluid testing is a proven and effective testing method that can help assuage any fears that employers have in relation to marijuana use. Scientifically speaking, oral fluids are a filtrate of blood, meaning that when testing oral fluids, one is detecting substances that are active in the bloodstream. However, lab-based oral fluid testing offers easier collection and a

slightly longer window of detection than blood, making it ideal for marijuana detection.

Lab-based oral fluid testing detects parent THC (the psychoactive component in marijuana) in as little as 15 minutes after use and continues detecting THC up to 2 days post use. With such a specific window of detection, employers are able to narrowly test for recent use. If an employee is a regular user but has not used in the past 2 days, an employer would be able to effectively state the employee is not under the influence of marijuana in the workplace, assuming he or she tested negative via an oral fluid test. When using lab-based oral fluid testing, employees who are using marijuana on their own time, outside of the workday, will not be penalized for that use, eliminating much of the risk to employers that fear potential court cases.

Along with recent use detection, lab-based oral fluid testing has the added benefits of reduced overall costs; laboratory-interpreted results; collections anytime, anywhere; FDA clearance; and customizable drug panels. Another unique benefit of lab-based oral fluid testing as it relates to marijuana in the workplace is that it is virtually adulteration-proof.

With easily observed collections, there is no need for an employer to worry about diluted and/or synthetic samples. While the Internet is awash with ideas as to how to cheat a urine test, recommendations for cheating oral fluid tests are few and far between, with most sites offering the same advice—“avoid the test if at all possible.”

Oral Fluid, Marijuana, and Federal Guidelines

Not only is lab-based oral fluid testing ideal for private employers hoping to deter marijuana use in the workplace, but federally regulated employers will soon be able to use lab-based oral fluid testing as well. The long-awaited Department of Health and Human Services (HHS) SAMHSA guidelines are likely to be approved by year end, and

the Department of Transportation (DOT) will likely follow. Federally mandated employers will then be able to perform lab-based oral fluid testing, removing this obstacle for many employers that have long wished to use oral fluids but have been unable to due to federal regulations.

Additionally, a number of states require compliance with SAMHSA/DOT regulations throughout their laws (803 KAR 25:280, for example). With the passage of SAMHSA/DOT oral fluid guidelines, employers in these states that have previously prohibited oral fluid testing will be able to perform lab-based oral fluid testing.

Conclusion

Legalized marijuana is here to stay, and employers must prepare to combat its use in the workplace in any way possible. Simply dropping marijuana testing isn’t a good option. Although questions still exist around the concept of testing for “impairment,” one thing is certain—testing via oral fluids is currently the most effective, practical method for recent-use marijuana testing on the market. As more employers become concerned about the impact of marijuana, they are switching to this method of testing and reaping the benefits of reduced costs, decreased risks, and increased peace of mind. There’s no doubt about it: Legalized marijuana is changing the drug testing world, and so are oral fluids. **SD**



Brian Feeley is the National Corporate Accounts Manager for OraSure Technologies' Substance Abuse Testing division, where he has focused on the launch and applications of oral fluid-based drugs of abuse, alcohol, and nicotine testing products. For more information, visit www.chooseintercept.com or e-mail Brian at bfeeley@orasure.com.

Reprint: SD_1018-10

Can Chemical Percentages Be Trade Secrets on SDSs?

A recent letter of interpretation from the Occupational Safety and Health Administration (OSHA) sheds some light on the subject. **By William C. Schillaci**

In a letter of interpretation dated August 3, 2018, U.S. OSHA's Directorate of Enforcement Programs provided several valuable insights into the extent chemical manufacturers, distributors, or importers may make use of trade secret protections when completing safety data sheets (SDSs), formerly material safety data sheets (MSDSs).

Under OSHA's Hazard Communication Standard ((HCS), 29 Code of Federal Regulations (CFR) 1910.1200(g)), these entities must provide an SDS for each hazardous chemical to downstream users to communicate information on the hazards. An SDS includes information such as the properties of the hazardous chemicals; the physical, health, and environmental health hazards; protective measures; and safety precautions for handling, storing, and transporting the chemical.

Required Information

The letter of interpretation responds to questions a company asked about Section 3 of the SDS, which requires information on the ingredients contained in the product indicated on the SDS. For mixtures, Section 3 states that the responsible entity must provide the chemical name and concentration (i.e., *exact percentage*) of all ingredients that are classified as health hazards, that are present above their cutoff/concentration limits, or that pose a health risk below the cutoff/concentration limits. The Section adds that the exact percentage of each ingredient must be specified; however, concentration ranges may be used if a trade secret claim is made, there is batch-to-batch variation, or the SDS is used for a group of substantially similar mixtures.

Exact Percentages

The questioner was primarily concerned about the extent of trade secret protections applicable to percentages of ingredients. In its response, OSHA made the following points:

- A manufacturer or importer may not claim trade secret status for a concentration range and is prohibited from masking the true range by using a wider range. If a concentration range is used on the SDS, it must be limited in terms of the percentage concentration variation (i.e., the narrowest range possible), and the variation in

"ENTITIES MUST PROVIDE AN SDS FOR EACH HAZARDOUS CHEMICAL TO DOWNSTREAM USERS TO COMMUNICATE INFORMATION ON THE HAZARDS"

concentration must have no effect on the hazard of the mixture. The HCS does not prohibit the use of symbols, such as = or <, to identify a range of values in place of the exact percentage as long as the range does not include zero percentage (0%) and represents the narrowest range possible; however, the symbol "~" (i.e., approximate or about) may not be

used. (OSHA does not allow the use of 0% as an ingredient's exact percentage or as part of a concentration range on an SDS because this may be misinterpreted to mean that a particular ingredient in a mixture is not present when in actuality it is.)

- It is not appropriate to leave the concentration percentage (or identity of the ingredient(s)) blank in Section 3. Where a trade secret is claimed, a statement that the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret is required in Section 3. If the exact percentage of a hazardous ingredient in a mixture is considered a trade secret, a concentration range may be used in its place.
- Use of the term "exact percentage" in Section 3 means a discrete number. Concentration ranges are allowed, however, in certain circumstances—for example, when there is batch-to-batch variability in the production of a mixture or when there is a group of substantially similar mixtures with similar chemical composition.

OSHA's letter also answers several questions about how to fill out SDSs when the exact chemical concentrations are not known and about grouping together multiple ingredients that have similar hazards.

OSHA's letter of interpretation is at <https://www.osha.gov/laws-regs/standardinterpretations/2017-08-03-1>. **SD**

William C. Schillaci is a contributing editor of Safety Decisions. bschillaci@blr.com

Reprint: SD_1018-11

EMPLOYEE SAFETY PERCEPTION SURVEY

Give this survey to your employees (or use it as a starting point to create your own) to assess the common attitudes surrounding safety at your organization and gain insights into the strengths and weaknesses of your safety culture.

1.

I have a good understanding of the safety requirements for my job.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

2.

I have received the safety training I need to perform my job safely.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

3.

I understand what is expected of me when it comes to safety on the job.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

4.

I have the right tools and equipment to do my job safely.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

5.

Safety is taken seriously by most employees at the company.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

6.

In my opinion, doing a job safely is more important than doing a job quickly.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

7.

I know where to go to find safety information in my workplace.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

8.

When I report a hazard or a safety concern, it is taken seriously.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

EMPLOYEE SAFETY PERCEPTION SURVEY

9.

If I see a coworker doing something unsafe at work, I feel comfortable speaking up.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

10.

Managers follow the same safety rules and policies as frontline workers.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

11.

Safety is an important value at my company.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

12.

My company is proactive in inspecting the workplace, machinery, and equipment for hazards.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

13.

Safety hazards are fixed promptly after they are identified.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

14.

If I am injured on the job, I can report my injury without worrying about negative consequences.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

15.

Accidents and close calls are investigated promptly to find the cause and fix hazards.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

16.

Company management supports the safety efforts in my workplace.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

17.

I am actively involved in keeping my workplace safe for myself and my coworkers.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

EMPLOYEE SAFETY PERCEPTION SURVEY

18.

Safety is everyone's job, not just the responsibility of the safety manager and safety committee.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

19.

Overall, I believe my workplace is a safe place to work.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

20.

Supervisors and managers want to know about safety problems so that they can be fixed.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

21.

I understand my company's safety policies and the consequences for not following them.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

22.

Violations of company safety rules are taken seriously.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

23.

Managers are actively involved with safety efforts in the workplace.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

24.

Safety meetings are relevant and informative.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

25.

I trust my coworkers, supervisors, and managers with my safety on the job.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree Don't know/uncertain

26.

Any additional comments?



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OSHA's Revised Injury Tracking Rule: What You Need to Know

The Occupational Safety and Health Administration (OSHA) proposes to reduce electronic recordkeeping requirements, but antiretaliation provisions remain unchanged.

By the Safety Decisions Staff

OSHA has published a proposed rule rescinding the requirement for large employers to electronically submit injury and illness data from OSHA Forms 300 and 301, while retaining the requirement for covered employers to electronically submit data from the 300A annual summary. However, the proposal does not alter the antiretaliation provisions at 29 Code of Federal Regulations (CFR) 1904.35 and 1904.36, which the agency has interpreted as limiting certain kinds of postaccident drug testing, safety incentive programs, and disciplinary policies.

The proposal discusses three OSHA injury and illness recordkeeping forms:

- **Form 300—Log of Work-Related Injuries and Illnesses.** Employers must record specific information, mainly about every work-related death, injury, and illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, medical treatment beyond first aid, or certain other significant outcomes.
- **Form 301—Injury and Illness Incident Report.** Within 7 calendar days after an employer receives information that a recordable work-related injury or illness has occurred, the employer must fill out this form or an equivalent. Form 301 is a detailed description of the circumstances that led to a work-related injury or illness; every entry on the OSHA 300 log must have a corresponding Form 301 incident report.

- **Form 300A—Summary of Work-Related Injuries and Illnesses.** This form must be completed annually by all establishments covered by 29 CFR 1904 and posted for employees to view, even if no work-related injuries or illnesses occurred during the year. Form 300A summarizes the number and type of work-related injuries and illnesses.

2016 Rule

Under a final rule (May 12, 2016, *Federal Register (FR)*), OSHA required that establishments with 250 or more employees electronically submit information from Forms 300, 300A, and 301 to OSHA. The rule also required that establishments with between 20 and 249 employees in certain designated industries electronically submit information from Form 300A to OSHA or OSHA's designee on an annual basis.

Initial data submission under the 2016 rule was initially required by July 1, 2017. OSHA subsequently extended that deadline to December 15, 2017. Also, under the current recordkeeping rule, the initial deadline for electronic submission of information from OSHA Forms 300 and 301 by covered establishments with 250 or more employees was July 1, 2018. However, in its proposal, OSHA notes that it will not enforce this deadline without further notice while the current rulemaking is under way.

The 2016 final rule also introduced antiretaliation provisions at 29 CFR 1904.35 and 1904.36. Those provisions require employers to have reasonable procedures for employees to report work-related injuries and illnesses and prohibit employers from disciplining or retaliating in any way against employees for reporting work-related injuries and illnesses. Those provisions have been interpreted by OSHA to limit certain kinds of postaccident drug testing policies, safety incentive programs, and disciplinary policies. OSHA has not proposed to change these provisions in this rulemaking.

Privacy Concerns

OSHA says employee privacy concerns were a major rationale for the proposed rollback of the electronic recordkeeping requirements. Mainly, OSHA says it is concerned that once employer-submitted injury and illness data arrive at OSHA, they become subject to potential disclosure to third parties under the Freedom of Information Act (FOIA), thereby "significantly increasing the risk to worker privacy."

In its proposal, OSHA notes that it has been particularly concerned about the information that must be reported in Form 301 (Injury and Illness Incident Report), which includes the full name, address, and date of birth of the employee; whether the employee was treated in an emergency room; whether the employee was hospitalized overnight as an inpatient; and the nature of the injury or illness. According to OSHA, information about the nature of the injury and the body parts affected is particularly sensitive.

OSHA also questions the value of having these data; for example, OSHA says it would need to divert considerable agency resources to analyze hundreds of thousands of forms in order to use the data for enforcement purposes. By contrast, OSHA stated that it already possesses substantial experience using 300A data—which do not contain information that might violate employee privacy—it has been collecting for 17 years.

In its proposal, OSHA says it believes that all information in the three forms should be held exempt under the FOIA. "However, there remains a meaningful risk that a court may ultimately disagree and require disclosure," states OSHA. "That risk remains so long as there is a non-trivial chance that *any* court in *any* of the nation's 94 federal judicial districts might issue a final disclosure order after the exhaustion of all available appeals. In the Department's view, that risk is not a reason to stop collecting Form 300A summaries, because their collection offers significant enforcement value with little

privacy risk. However, OSHA has re-evaluated the utility of routinely collecting the Form 300 and 301 data for enforcement purposes, given that it has already designed a targeted enforcement mechanism using the summary data, and given the resources that would be required to collect, process, analyze, distribute, and programmatically apply the case-specific data in a meaningful way. Therefore, OSHA believes that the risk of disclosure under FOIA is a persuasive reason not to collect individual case information from Forms 300 and 301, as that collection offers only uncertain enforcement value while putting workers' privacy at risk."

EIN Submission Proposed

In the proposal, OSHA is also seeking comment on whether to add a requirement for employers subject to the electronic recordkeeping requirements to include their Employer Identification Number (EIN) in these submissions. OSHA believes the inclusion of the EIN would permit easier cross-referencing with data collection performed by the Bureau of Labor Statistics (BLS) and potentially avoid duplicative reporting.

Forms Would Remain

Employers should bear in mind that the proposal would not eliminate the requirement to fill out Forms 300 and 301; it would only eliminate the requirement for large establishments to submit these forms electronically. OSHA compliance officers will still have access to these forms during inspections.

"Compliance officers routinely review them as part of those inspections, and the information recorded in those forms can provide a roadmap for the compliance officer to focus the inspection on the most hazardous aspects of the operation," states OSHA. **SD**

OSHA's proposal was published in the July 30, 2018, FR, and is available at <https://www.gpo.gov/fdsys/pkg/FR-2018-07-30/pdf/2018-16059.pdf>.

Reprint: SD_1018-12

Meet Our Latest Safety Standout Award Winners!

The *EHS Daily Advisor* Safety Standout Awards recognize companies and safety professionals who excel in making their workplaces safe, and this round of awards was all about safety culture. **By Justin Scace**

The awards, sponsored by SafeStart, were presented at a ceremony during BLR's Safety Culture 2018 event in Atlanta, Georgia, which took place September 12–14, 2018. Let's meet our most recent winners!

Best Overall Safety Culture: King's Seafood Company



King's Seafood Company is privately held and has been "Delivering Great Seafood to America" for over 70 years. The organization owns and operates 21 restaurants, and this year marks the 10th Anniversary of King's Seafood Distribution, the company's exclusive seafood processing and distribution



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operation, which enables it to offer products of superior quality, freshness, and value.

The *EHS Daily Advisor* Editorial Board was very impressed by King's Seafood Company's application—it was clear that their organization went above and beyond when it came to creating a strong safety culture. In their application materials, they demonstrated that their safety program is equitable to all other company objectives and that safety is a top priority and often interwoven with other company initiatives.

King's Seafood explained that over a year ago, they decided to shift from a "reactive, compliance-based" safety program to a "proactive, culture-based" program. Even before this shift, the program was already successful—so why would they change it? As the company stated in its application:

"Because it could be better! That's exactly what we did, and the results we saw were astounding, making our already successful program better than ever. Safety is a multi-layered approach in our organization that has support from everyone that works here. We combine training, education, feedback, analytics, best practices, compliance, audits, incentives, leadership, hourly crew, and management into the program."

"Our safety culture is cyclical. Our crew members are required to report all incidents, even those where no injury occurred. The restaurants document and investigate all incidents, retrain on all preventable incidents, and send the detailed investigation form to Home Office. Home Office tracks and analyzes the information received and provides overall direction back to the restaurants as a whole and on an individual level. The restaurants are responsible for developing their own safety culture and action plans to ensure their operations are safe and prevent injuries before they occur."

King's Seafood's home office is located in Costa Mesa, California, and supports all restaurant operations in California, Arizona, Nevada, and Texas—and the

business is growing! The organization's seven restaurant concepts currently include the Water Grill (5 locations), King's Fish House (11 locations), Pier Burger, 555 East, Lou & Mickey's, Fish Camp, and Meat On Ocean.

Best Safety Committee: Valero Renewables—Albion



Valero Renewables—Albion is located in Albion, Nebraska, about 50 miles southwest of Norfolk. The biorefinery sits on 107 acres and started ethanol production in October 2007. Valero purchased the plant in April 2009. The facility uses a dry-grind production method and state-of-the-art technology to maintain industry-leading standards in production, safety, product quality, and environmental stewardship. The Albion plant annually processes approximately 47 million bushels of corn into approximately 135 million gallons of denatured ethanol and 355,000 tons of distiller's grains coproducts. The biorefinery employs approximately 65 full-time personnel.

The Valero Albion safety committee is composed completely of non-management personnel. Currently, there are 14 members, selected on a voluntary basis and representing all departments of the facility for a continuous term of 1 year. When the end of the term is reached, the representatives will find a replacement to fulfill their roles, and all terms are staggered for rotation to maintain the integrity of the committee.

The Editorial Board was impressed by not only the excellent structure, obvious team spirit, and diverse functions described by Valero Albion's safety committee but also their unique ways of promoting safety engagement among workers. Their application stated:

"The Valero Albion Safety Committee is one of the key vehicles for promoting employee engagement at our

facility. The safety committee has done an excellent job at making safety fun, which always increases the likelihood of employee buy-in. A couple of years ago, the Safety Committee launched a program called A-lotto Safety. This program allows members of the committee to hand out lottery-style scratch tickets to other facility employees when observing positive safety behaviors.

"Another effective way the safety committee promotes engagement is filming safety videos that star members of the committee, as well as other site employees, as the main actors. All employees enjoy watching a video that is produced by a familiar face, and once again, if safety is also fun, employees are much more likely to engage and remember it."

Valero Renewable Fuels Company LLC was formed as a subsidiary of Valero Energy Corporation in spring 2009 when it purchased 7 ethanol production facilities. Now with 11 plants, Valero has total annual production capacity of 1.45 billion gallons, making it one of the largest ethanol producers in the nation.

Exceptional Progress Award: Smith & Nephew



Smith & Nephew supports healthcare professionals in more than 100 countries in their daily efforts to improve the lives of their patients. This is accomplished by taking a pioneering approach to the design of their advanced medical products and services, by securing wider access to their diverse technologies for more customers globally, and by enabling better outcomes for patients and healthcare systems. Smith & Nephew is a leader in the following arenas:

- Orthopedics Reconstruction: Joint replacement systems for knees, hips, and shoulders

Our Safety Standout Award Runners-Up

We also want to congratulate our runners-up for this round of awards—these organizations are truly safety culture leaders!

Best Overall Safety Culture: ComEd and National Office Furniture



ComEd is an energy company providing service to approximately 4 million customers across northern Illinois, managing more than 90,000 miles of power lines in an 11,400-square-mile territory. As a major Illinois corporation, ComEd takes seriously its responsibility to be a good community partner. ComEd supports a range of initiatives that are making a difference in peoples' lives, with focuses on education, environment, arts and culture, and community development programming.

NATIONAL.

National Office Furniture provides high-quality, stylish furniture at an exceptional value. We are passionate about delivering exceptional products and personal experiences. Our design-driven, comfortable, beautiful products are easy to specify and create spaces that encourage collaboration and boost productivity. National delivers solutions for private offices, open plan footprints, conference rooms, learning spaces, lobby areas, cafés, and more. Our expansive portfolio allows us to easily outfit entire facilities from the welcoming reception area to executive offices. We work with customers to create successful workplace environments by placing the right furniture in the right spaces.

Best Safety Committee: Constant Aviation and SWM



Constant Aviation is a full-service aircraft maintenance, repair, and overhaul (MRO) company with a nationwide network of facilities and resources. We specialize in airframe maintenance, major repairs, avionics, interior refurbishment, paint, parts distribution, and accessory services in the private and corporate aviation industry. As one of the fastest-growing and most respected MRO organizations in the country, Constant Aviation provides customers a tailored one-stop shop for all their maintenance needs. Customers experience unparalleled service and a commitment to understanding the importance of aircraft availability and predictability as well as minimizing operational costs for aircraft owners/operators.



SWM is a leading global provider of engineered solutions and advanced materials. From our origins as paper-making experts during the Renaissance to our cutting-edge technologies that solve today's modern business challenges, SWM has consistently demonstrated a forward-looking approach to helping our customers succeed. In recent years, as we focused on expanding our reach beyond fiber-based materials, SWM established and grew its Advanced Materials & Structures (AMS) platform to include expertise and capabilities in resin-based technologies and materials. Every day, our papers, films, nets, and nonwovens are used in a diverse range of products, applications, and industries around the world. As experts in highly engineered materials made from fibers, resins, and polymers, we provide solutions to make products stronger, more durable, and with increased performance.

Exceptional Progress Award: Suddath



Suddath Global Logistics, LLC (SGL), a division of the Suddath Companies, provides flexible and scalable end-to-end supply chain solutions to domestic and international clients. SGL is a licensed non-vessel operating common carrier (NVOCC), freight forwarder, indirect air carrier (IAC), property broker, and motor carrier of property. Service offerings include ocean and air freight with customs clearance; foreign trade zone (FTZ) operation; less than truckload (LTL) and full truckload (FTL) interstate transportation; final-mile delivery coordination; and a national network of distribution centers including medical and food-grade warehousing, value added services, and cross-docking.

Moving Beyond Compliance Award: Schiavone Construction



Schiavone Construction is a heavy civil construction company founded in 1956 that performs work in the greater New York City area, including the building and rehabilitation of bridges, tunnels, track work, subways, and roadways. Schiavone works with a large amount of state and local agencies, such as the Department of Transportation, Metropolitan Transit Authority, and the Department of Environmental Protection. Through the teamwork of Schiavone's engineering, estimating, safety, and construction professionals supported by the management team, Schiavone continues to be successful in a highly competitive and dangerous field.

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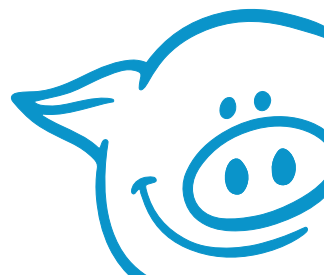
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DAY TO DAY

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The Editorial Board saw that the progress that Smith & Nephew has made in recent years with its safety efforts was undeniable. It noted that its greatest challenge was a familiar one for safety pros—ownership. Its application materials described a culture where, as recently as the end of 2014, a “not my problem” atmosphere that viewed safety as a cost center and production inconvenience had left it with an injury rate that reflected such attitudes—a Total Recordable Incident Rate (TRIR) of 1.59.

Clearly, something had to change, and the safety team at Smith & Nephew was up to the task. Its application materials stated:

“The most visible mechanisms employed to nurture change are our engagement efforts. Initially employees were asked to commit to safety by inquiring if they would be the ones to ‘drop the ball’ with the ‘Don’t Drop the Ball’ program. Once we had the commitment, Smith & Nephew then taught employees to identify near misses by rewarding them with lapel pins and giving out monthly awards.... Engineers, office workers, maintenance, managers, and housekeeping were all encouraged to commit, participate, and improve the work environment. We continually maintain employee engagement programs and frequently develop new ones to keep attention and interest high.

“Our less obvious efforts have focused on program development, training, and accountability. As our programs were established and employees received more and better training, an audit process was put in place. With the auditing and near-miss data came transparent and focused metrics.... At

the end of 2017, the TRIR was 0.48. Our recordable injuries were down nearly 75%. Our culture was shifting. We were getting buy-in. There was ownership.”

Moving Beyond Compliance Award: City of Minneapolis Risk Management and Safety Committee



Minneapolis is a vibrant world-class city with a flourishing economy, the city’s largest employment sectors being health care and social assistance, professional and technical assistance, educational service, finance and insurance, and accommodation and food service. With 21 accredited colleges and universities in the Minneapolis–Saint Paul area and 4 ABA-accredited law schools, the city’s highly educated workforce continues to be a driving force of a strong economy. The University of Minnesota’s highly acclaimed medical school and the city’s 7 hospitals have made Minneapolis a leader in the medical field. Minneapolis is also the county seat of Hennepin County, and along with the city of Saint Paul and 180 other cities and townships in 7 counties, the Twin-Cities region makes up the 16th largest metropolitan area in the United States, encompassing nearly 3,000 square miles.

What stood out to the Editorial Board the most in the city of Minneapolis’s application was the Risk Management and Safety Committee’s efforts to promote safe behaviors in areas that affect safety both on and off the job. In particular, their recognition of the need for a distracted driving policy led to a team effort that included more than 15 labor unions and resulted in the training of more than 1,500 city employees.

The city of Minneapolis also has shown a great effort toward understanding and addressing human factors in their safety programs, taking a serious look at ergonomic assessment in safety, and creating a comprehensive motor vehicle accident reduction plan. They have truly moved beyond compliance! Their application materials highlighted several key efforts of their Risk Management and Safety Committee:

“We are seeing a huge difference in drivers’ behavior, because they know that they are the most important asset for their families and they need to be going home safe every day—this is the message we used during our training. Before the policy and training, we used to get several calls from the general public about improper driving behaviors of city employees. Through our employees’ critical thinking and different behaviors, we are making a difference in safety.

“We work together to provide value-added information to all employees. For example, we provide monthly free ergonomics training (this is not mandatory under Federal or State law)—the city administration and safety committee believe in providing all needed information to employees so that they can make the right decision. All of our 4000+ employees have access to a web page 24/7 where they can report issues, safety concerns, near misses, and injuries. These reports will go to the supervisor, and he or she will deal with the issue in real time, thanks to technology improvements.”

Congratulations!

Please join us in congratulating all our Safety Standout Award winners on their well-deserved recognition as leaders in the safety field. Keep an eye out for our next round of awards. If your safety program goes above and beyond, your organization could be the next one to be recognized! **SD**

Justin Scace is the senior editor of Safety Decisions. jscace@blr.com

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Better Call Saul's Wonderful Safety Moment

Sure, he does odd jobs for shady characters. But Mike Ehrmantraut also really knows his stuff when it comes to safety culture.

By Justin Scace

The fourth-season premiere of *Better Call Saul* landed in August, and it was every bit as entertaining and brilliant as fans have come to expect. But it also included a detailed, accurate, and dryly hilarious scene wherein a main character takes stock of a large corporation's major safety and security failings.

Sometimes it can be hard for professionals to see a depiction of their field onscreen. Archaeologists cringe at *Indiana Jones*. Cybersecurity professionals laugh at *Person of Interest* (and any number of other recent shows or movies that throw the word "hacking" around a bit too freely). And don't get scientists, police officers, or lawyers started on any version of *CSI*.

So, it's always a bit refreshing when some form of entertainment gets it right—especially the somewhat more mundane aspects of the job. And *Better Call Saul* did exactly this for safety and security professionals in its season 4 kickoff.

(Quick note: I doubt that anything in this article could be remotely considered a "spoiler" since by the time this goes to print the season will be wrapped up ... but if you don't want to know *anything* about plot points from season 4 of *Better Call Saul*, stop reading now.)

At the end of the third season, Mike Ehrmantraut, the former corrupt cop and current part-time henchman/full-time doting grandpa played by Jonathan Banks, was looking to get some very hard-earned money laundered. Long story short, he was connected with a large multinational corporation called Madrigal that was willing to do the job for him, legitimizing his funds via a seemingly ordinary



VM/GETTY.COM

paycheck. His contact at Madrigal, Lydia Rodarte-Quayle, said he would be listed as a “logistics consultant.”

“Security consultant’ would be better,” Mike suggested.

Flash forward to halfway through the season 4 premiere, and Mike gets his money, clean as a whistle, in a check from Madrigal Electromotive in the amount of \$10,120.51. Mission accomplished.

But then, later in the episode, Mike does something interesting ... he actually does his job as a security consultant for the company and performs a very thorough security penetration test as well as a frank assessment of health and safety practices in a warehouse environment.

After lifting a picture ID from a Madrigal employee’s home, Mike stands in the foyer of one of the company’s satellite offices that also has a warehouse. He watches as a couple of employees walk right by him. I should probably mention at this point that, aside from both men being bald, the picture on the ID looks *nothing* like Mike.

So, Mike continues on, helping himself to a clipboard in an empty cubicle. He then heads to the break room, fixes a cup of coffee, looks at all the memoranda on the company bulletin board, and then even inserts himself into some banter between two employees (who he knows couldn’t possibly have ever seen him before) debating whether Muhammed Ali or Bruce Lee would win in a fight.

As Mike turns to leave, one of these employees calls out, “Hey, hold up, wait—wait!” Mike turns around slowly. Has his presence finally been challenged by a vigilant employee?

“Did you sign Tina’s birthday card?” the employee asks.

Oh, well. Mike takes the card and signs the name of the employee whose ID he stole before moving on to the warehouse. He’s careful to pick up a reflective vest and a flashlight on the way in before taking off in a little Madrigal-branded golf cart to make his trek around the large facility more efficient.

“I WALTZED THROUGH SECURITY WITH SOMEONE ELSE’S ID. NOBODY GIVES ME A SECOND LOOK. WHEN THE RIGHTFUL OWNER SHOWS UP, THERE’S NO FACILITYWIDE BADGE CHECK.”

Several times Mike stops his cart near groups of employees. He appears to be irritated at the lackadaisical safety awareness of some workers, and it also seems like he’s almost hoping one of them gets with the program and finally asks him, “Who the heck *are* you?”

But nobody does. And the unofficial security and safety audit continues. Here are some of the things Mike does in the warehouse:

- Takes notes on inventory;
- Grabs a manifest and flips through it;
- Looks on incredulously as forklifts barrel around the floor at unsafe speeds;
- Notices poorly positioned security cameras; *and*
- Goes through the trash and finds some sensitive-looking memos.

Later, Mike calls over the supervisor of a crew that is moving a bunch of boxes while pulling an order. Mike chides the supervisor for not equipping the employees on his team with lift belts and gloves and sends him to the equipment room, since “rules are rules, you got me?”

Now, if you’re in the environment, health, and safety (EHS) profession, you probably know that the effectiveness of lift belts is questionable at best, but this is a relatively minor quibble. After all, when was the last time a television show made a point of detailing any kind of personal protective equipment (PPE) protocols? This is still a thoroughly enjoyable safety shout-out!

Finally, Mike finds the employee whose ID he lifted in order to gain access. The employee is wearing a temporary pass—clearly there wasn’t a security sweep after a missing ID was reported.

Mike drives up behind the employee in his cart, pulls out the ID, and says, “Uh, excuse me. I think this belongs to you ... I need to talk to your manager.”

And that’s when Mike unloads on the manager in a wonderful EHS/security moment:

“I waltzed through security with someone else’s ID. Nobody gives me a second look. When the rightful owner shows up, there’s no facilitywide badge check. I find access doors left unlocked or propped open, passwords written on Post-it® notes; where else workers are using pen and paper instead of electronic inventory devices, which leaves you wide open to pilfering?? You’ve got duplicate routing numbers on cargo, surveillance camera blind spots on the north and the east side of the floor, inventory documents that are going into the trash instead of being shredded, not to mention loading equipment being driven at unsafe speeds and crews disregarding safe ...”

At this point, someone—the manager being chewed out—finally asks, “Wait, who are you, exactly?”

Mike replies, “Ehrmantraut. Security consultant.”

If not for his ties to the criminal underworld, Mr. Ehrmantraut would be a valuable asset to any corporate safety or security team!

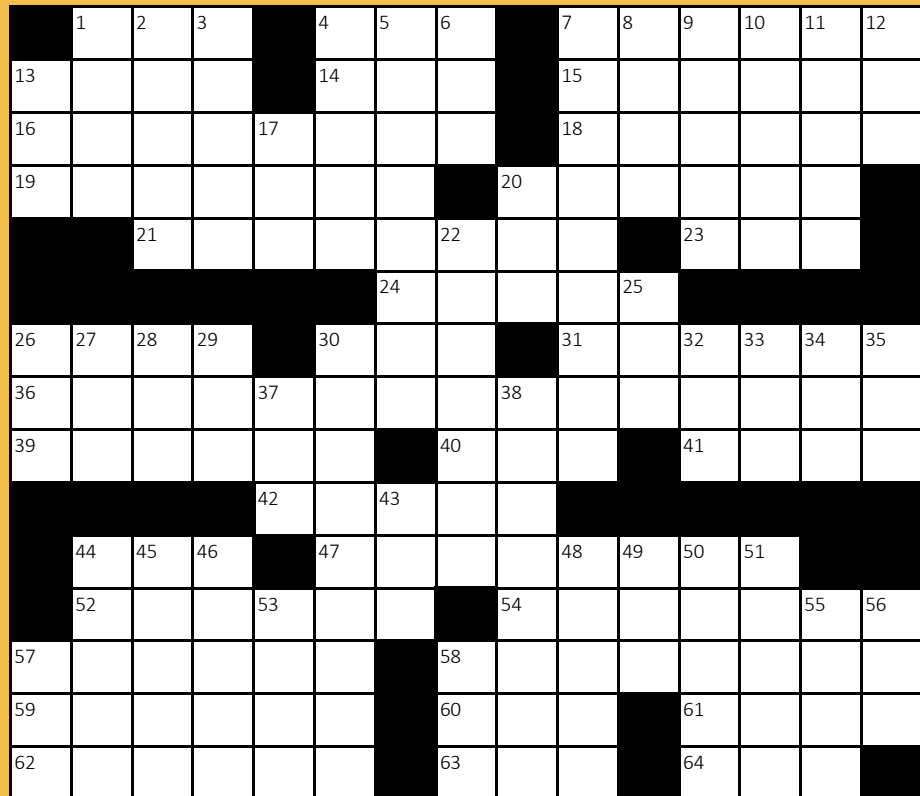
Of course, we find out later that Lydia isn’t too happy that the guy for whom she just laundered money is now drawing attention to himself companywide—even if he is making some great improvements to Madrigal’s safety program. **SD**

Justin Scace is the senior editor of Safety Decisions. jscace@blr.com

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ACROSS

- 1 Whole Foods, on the NYSE
- 4 Frozen water
- 7 Begins
- 13 Sporting goods company founded in Italy, now in South Korea
- 14 Fuel for a fire
- 15 Grow weary with
- 16 Cause for concern
- 18 Spanish queens
- 19 *To Kill a Mockingbird's* lawyer Finch
- 20 Puts fresh silverware (on the table)
- 21 Roman emperor depicted in *Gladiator*
- 23 The Concorde, e.g. (abbrev.)
- 24 Daughter from *The Sound of Music*
- 26 Roof overhang
- 30 Obi-wan's assumed name
- 31 Popular sandwich roll
- 36 Your (hopefully) favorite safety publication ...
- 39 Native American tribe of Nebraska and Oklahoma
- 40 Treat for a horse
- 41 Contraceptive devices
- 42 Approximately
- 44 Private messages on Twitter (abbrev.)
- 47 Once more
- 52 One responsible for getting rid of lathered soap
- 54 Preliminary election
- 57 Every good plan A should still have one of these
- 58 Pesky, bothersome thing
- 59 Simian animal
- 60 One of Mr. Claus's employees
- 61 Barnyard animal
- 62 John of Monty Python and *Fawlty Towers*
- 63 Baseball Hall-of-Famer Mel
- 64 19th letter of the alphabet



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- 1 Droop, as a flower
- 2 Another way to describe a B note
- 3 Luigi's more famous brother
- 4 Troy's Latin name
- 5 Soothed
- 6 Food often scrambled
- 7 A bundle that helps you cope with anxiety?
- 8 Binds with rope
- 9 Zodiac sign
- 10 Leases
- 11 Statement with a raised glass
- 12 Smart & Final Stores, on the NYSE
- 13 Airline regulator
- 17 1900, to Caesar
- 20 Regret
- 22 Go to a restaurant
- 25 Notes to follow Sol
- 26 6th sense
- 27 They'll help you with a tow
- 28 Veteran's group (abbrev.)
- 29 Time after twilight, to a poet
- 30 N'Sync lyric
- 32 Shakespeare's Richard ____
- 33 French coin
- 34 Put a stop to
- 35 Feeds on the Internet
- 37 Earl Grey or oolong
- 38 Hurl with an old weapon
- 43 "... ____ the ramparts ..."
- 44 NatGeo Wild veterinarian
- 45 Pooh creator
- 46 Slithery critter
- 48 Con
- 49 Machine learning creations
- 50 Picture
- 51 Greek word for "dwarf"
- 53 Second generation Nintendo system (abbrev.)
- 55 Old VCRs
- 56 Until now
- 57 *Better Call Saul* network
- 58 *The Matrix* hero



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SAFE FOR WORK



"... due to some unfortunate events at Steve's retirement party, I have been informed by Feline Resources that catnip will no longer be served at any company-sponsored events."

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