



Training

Risk Assessment: How to Do One and Why Technology Can Make You More Efficient

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A risk assessment is the process of evaluating how well your workers are protected from workplace hazards, and what preventive or protective measures should be in place to control those risks. Here's how to get started on creating one, and why technology can aid worker safety in your organization.

Conducting routine risk assessments is essential for all businesses to protect their employees and minimize property damage.

An effective risk assessment comes down to three core elements: risk identification, risk analysis and risk evaluation, notes the American Society of Safety Professionals (ASSP) in a *recent article*.

"Risk assessment serves many purposes for an organization, including reducing operational risks, improving safety performance and achieving objectives," according to the ASSP.

The terms "risk" and "hazard," while they are sometimes used interchangeably, have slightly different meanings. A hazard is something that may cause an injury, such as an uneven surface or faulty personal protection equipment (PPE), while a risk is the possibility that the hazard may lead to an injury.

"What it boils down to with this technology is this: If you can get everyone involved and empowered with it, you have a better opportunity to learn from it because it's easier to track everything."

Langdon Dement
Evotix

"The most important aspect of conducting a risk assessment is hazard awareness and identification," says Langdon Dement, a global environmental health and safety specialist at Evotix, a healthcare software company *formerly called SHE Software*.

Managing COVID-19 with EHS Software

Managing COVID-19 safely in your workplace requires safety teams and managers to oversee and collate significant amounts of data, including employee vaccination status, testing needs and information about possible contact with an infected person.

Using EHS software can help by managing this information at scale.

With a typical EHS software application, a company can develop its own unique protocols to manage different government regulations, rates of testing and vaccinations across multiple locations, and by allowing workers to self-report possible symptoms from home.

The software may be used to send out health questionnaires to employees and perform wellness checks, track symptoms, inspections and audits.

"If I don't feel well one morning, I can use my mobile device to alert safety managers who can see and manage that information in their safety system, as opposed to going back and looking through emails and spreadsheets," says Paul Gibson, channel partner manager at Evotix.

"If hazards are not identified then safety is going to be obsolete because incidents are going to happen, but it's what preventative mechanisms you have in place that are going to reduce them to acceptable levels," he says. "Manufacturing is inherently dangerous, and you can't get rid of everything."

Read more: OSHA Recordable vs. Reportable Incidents: How to Tell the Difference

How to Perform a Risk Assessment

The first step in successfully addressing the hazards and risks in your workplace is to properly identify them. The ASSP's *ISO 31000-2018* standard puts forward factors to examine when identifying risks, including the following:

- Tangible and intangible sources of risk
- Threats and opportunities
- Causes and events
- Consequences and their impact on objectives
- Limitations of knowledge and reliability of information
- Vulnerabilities and capabilities
- Changes in external and internal context
- Indicators of emerging risks
- Time-related factors
- Biases, assumptions and beliefs of those involved

Of the many methods of identifying workplace hazards is hazard identification (HAZID), which offers a qualitative, structured technique for risk identification, says the ASSP.

"HAZID uses guide words and/or checklists to identify potential hazards, their causes and consequences," the ASSP notes. "Along with its qualitative structure, HAZID can also include qualitative analysis to determine the potential severity of a particular hazard, as well as the likelihood of

occurrence.”

By using tools such as risk assessment matrices and heat maps, a risk assessment team can compare and prioritize hazards. Using these tools lets a safety professional place risks into the matrix or map based on the likelihood and severity of a potential incident, and from there these safety experts can analyze each risk to determine the highest-level risks to address, says the ASSP.

Read more: How EHS Software Can Help Create a Stronger Safety Culture

Risk Management Software

Safety managers who want to take their safety programs to a new level (and move beyond using a spreadsheet, or old-fashioned pens and paper) can consider using safety data gathering software designed to foster a smarter approach to safety reporting, compliance and management.

Advances in technology now allow safety professionals to use devices such as mobile phones, sensors and wearables to gather data from their workers and accurately measure possible safety near misses, and other safety observations, in order to engage workers in a culture of proactive health and safety.

Using these technologies can also improve efficiency and reduce the costs that arise from workers’ compensation claims, the cost of medical care and fines associated with injuries that happen at work.

“I can manage any health and safety program with Excel or PowerPoint, but I’m not going to be able to be out in the field the way I need to, gathering data,” says Dement of Evotix.

“Technology provides the opportunity to create more effective processes; I’m not having to get someone to collate data for me and bring it to me,” he adds, noting that one of the most critical aspects of workplace safety is hazard analysis, and with the current software technology a worker can take a picture of something that looks unsafe, and a safety manager can later assess whether it’s a potential issue.

“‘I saw Paul don and doff his PPE and he didn’t do it properly,’ or ‘I saw Paul walk upstairs carrying stuff and there was a wet floor,’” he says. “What it boils down to with this technology is this: If you can get everyone involved and empowered with it, you have a better opportunity to learn from it because it’s easier to track everything.”

EHS software is commonly mobile-first, which fosters worker participation in identifying potentially unsafe activities at the front line while capturing rich data to help prioritize safety and make operational improvements to ensure compliance.

With most manufacturing employees not working at desks or in front of laptops, a mobile element is essential, Dement says.

MSC SafetyMax allows for preventive measures such as PPE inspection, which companies can perform daily, monthly or yearly. This feature ties into the ability to identify risk and simple practices that may help prevent recurring risks that lead to injuries.

The data gleaned from devices and other sources “are key to finding the ROI of your safety culture,” according to an EHS Daily Advisor article titled “***The ROI of Safety Culture***.” But there are other sources, the article adds, which include:

- Decreased lost time. Losing less time to injury or illness is a positive for your company, but it’s important to translate what these metrics mean for the business to company leaders.
- Lower insurance costs. You can demonstrate the ROI of safety culture through a decrease in insurance costs, especially those related to workers’ compensation.

- Improved employee morale and safety culture adoption. While these are more subjective than data-driven metrics, it is well established that higher morale means higher productivity.

Indeed, as noted in *an article in EHS Today*, citing studies conducted by the *Smith School of Business* at Queen's University and the *Gallup organization*, disengaged workers "have 37 percent higher absenteeism, 49 percent more accidents and 60 percent more errors and defects," while organizations "with low employee engagement scores experienced lower productivity, profitability, job growth and share price over time."

Read more: Why You Need to Perform Workplace Hazard Assessments

What steps are you taking to reduce injury risks in your workplace? Share your thoughts in the comments below.

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