



Employee Safety

ASSP Safety 2019: Fresh Perspectives on Safety Culture

Don Sears | Jun 11, 2019

Mistakes on the job that injure workers are going to happen. The question is how to reduce the most impactful or fatal ones and garner active participation from everyone in a company. An engaged safety culture is made more possible by understanding context over pinpointing blame—and leading by example.

What's working to foster **safety culture** for manufacturers today—and what isn't?

To better understand and further the discussion, the American Society of Safety Professionals "Safety 2019" conference offers fresh perspectives from large organizations such as NASA and Alcoa—and from consultants exposed to safety culture across industries.

Stop the Blame Game: Design Your Safety Culture from the Outset

A 2017 train derailment in Seattle left three people dead. The cause? According to the National Transportation Safety Board, it was the train operator who took a curve at more than twice the recommended speed.

But **further analysis** showed that an automatic braking system could have helped slow or stop the train, says Stephen Scott, director of human performance and continuous improvement at Alcoa in his presentation "Planning for Failure, Revisited."

"Blaming people for doing things that are pretty normal and pretty predictable isn't going to fix bad events from happening," Scott says. "We've got to teach people to understand the conditions for bad events, when where we're going to deviate, and when we're going to make bad decisions so that we can recognize those conditions and do something about them."

Scott, who has 30 years of safety experience, observes that context is vital to changing the mindset of safety practitioners who are very focused on compliance and reducing days-away restricted or transferred, aka "**DART**" rates.

Finding fault in humans is the easy part, contends Scott. Does it make people safer?

"Do you want to blame and punish or learn and improve?" asks Scott.

"We have got to work on employee behavior," says Tim Page-Bottorff, a senior safety consultant at SafeStart, in his presentation "Leapfrogging From Compliance to Culture."

"We've got to find out where workers are coming from, see if we can get into a position to entice them or motivate them to follow what's required by law," says Page-Bottorff.

How do you motivate employees? "We still need to understand their frame of mind," he says. "They may have frustrations on the job or at home ... If you want better awareness, you have to help give them the skills to be more aware."



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The Evolution of Human Performance

"It started before we ever heard about human performance with the belief that errors are random," says Stephen Scott, director of human performance and continuous improvement at Alcoa.

The dominant thought about ten years ago was mainly that people make mistakes because they make bad choices: They're not very smart or not very conscientious.

"They don't try to do a good job every day. They're lazy. Sound familiar?" asks Scott. "So if that's your belief system then you believe people are the problem and people are messing up the system. So what are you going to do? You're going to try and fix the people."

What if people are trying to do their jobs, but don't have the right tools or systems in place? Are they set up for success?

"One of the fundamentals of human performance is that people don't go to work with the mindset to do things that will harm them or others," says Scott. "The system puts people in a position where they make mistakes, but we can recognize those conditions under which it's more likely and we can help people succeed."

Attaining a Safety Culture by Planning for Failure

Designing safety into the process is much harder than finding fault, Scott contends. Alcoa has adopted human performance models, critical risk management and systems thinking.

It's about not simply asking "if," but "when."

The human performance model establishes the following:

- Error is part of the human condition and is predictable.
- Error is a consequence of systemic flaws.
- Systems design can help prevent errors.

- Systems can be tolerant of errors and have resiliency built-in.

"Fatality prevention at Alcoa relies on a foundation of rules, standards, training and accountability. You have to have good policies and procedures, and you have to train people adequately and have a measure of accountability."

And there have to be clear expectations for what people do.

"But that's not enough to keep us from having fatalities and serious injuries," says Scott.

The evidence proves it. One of Alcoa's top performing safety plants in Quebec was a role model, until it had an accident with a worker who was struck by a forklift and it resulted in a fatality.

Its response? It created a program called "Worker on Foot" which isolated those less obvious safety areas that could result in a fatality. In fact, fatality prevention became a major focus at Alcoa. It identified six other major areas of critical risk for its business—and focused on ways to integrate daily communication and documentation with every crew and team with its supervisors.

"It was hard, but it ended up making a difference," says Scott. "It became part of our management system." And thus, became part of its culture.

From Safety Cop to Safety Friend: Getting Over the Compliance-Only Mindset

There are many ways to foster safety culture, and it can be difficult depending on your company's size and the extent of its safety issues.

"Compliance is a great motivator for supervisors and managers, but it won't do a lot for employees," says Page-Bottorff. "Safety cops won't change worker behavior long term. If you want to engage workers, you have to engage them everywhere, not just the classroom. Ultimately, good habits perpetuate good habits."

At ASSP, representatives from NASA admitted that safety was something that was sorely needed and a difficult challenge there in its presentation "NASA's Journey to Safety Culture." The government's aeronautics organization is large—and encompasses much more than shooting rockets and astronauts into space.

NASA has 30,000 employees all over the U.S. with a mix of civil servants and contractors—who do not always feel they are considered NASA employees, says Manuel Dominguez, an institutional chief safety officer at the Glenn Research Center in Cleveland. With many workers holding advanced degrees, NASA's culture had a heavy engineering focus and had not traditionally taken safety very seriously, Dominguez says.

After a number of major accidents including the Columbia re-entry disaster of 2003, NASA leaders recognized and sought to change its broken safety culture. NASA has a major engineering culture with many workers who hold advanced degrees, and it that has traditionally not taken safety very seriously.

After a number of major disasters and a recognition by leaders which included the Columbia re-entry disaster of 2003, NASA sought out to change its "broken safety culture." To fix it, the organization had to show it wanted to change. So it began a series of worker-focused surveys on how employees perceived safety.

To get honest answers, NASA had to ask these questions anonymously. Over time, it worked. Today, NASA's total case incident rates or "*TCIR*" are well below the Bureau of Labor Statistics averages.

"Culture is a tool that we use to improve the programs," Dominguez says. "We're not just here to make

sure that the next generation of astronauts comes back safely. Our job is to make sure that the thousands of employees, contractors and everybody who comes to our facilities goes home safely, every single day. In order for us to do that, we need them to be part of the process.”

How does your company foster safety culture in 2019?

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