BUILDING A CULTURE OF SAFETY IN OIL & GAS

How behavior-based safety helps keep turnaround workers protected

Honeywell

INTRODUCTION

What is the best way to keep oil and gas workers safe, especially during high-pressure downstream environments like turnarounds? The answer sounds simple, but it can be a struggle to implement: avoid injuries in the first place. Success begins with establishing and reinforcing cultural guidelines that help workers make the right decisions, while building an atmosphere of trust. This paper introduces the idea of behavior-based safety and suggests some key strategies to help you implement a safety-oriented culture in your own organization - especially when workers need it most.

EVERY WORKER WANTS TO GO HOME SAFELY AT THE END OF THE DAY.

Safety in the oil and gas industry is mission-critical. This is never truer than during turnarounds, when stress is high and you are managing more workers. No one intends to be involved in accidents, but we know that accidents still happen. This is because people sometimes disregard basic safety precautions, despite their best intentions. They miss a warning sign, even if it is bright-red and blinking. They take off protective gear because it's a little uncomfortable. They decide that it's too long a walk back to the store room to get the proper ladder.

A worker is injured on the job every seven seconds in the U.S., according to the National Safety Council[1], and nearly all those incidents – 98% – occur because of unsafe behavior. According to OSHA, many fatalities are wholly avoidable, and with a fatality rate that is 7X higher than other industries[2], the oil and gas industry must be purposeful and wholly committed to establishing a culture of safety.

7x

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1. The National Safety Council https://injuryfacts.nsc.org/work/work-overview/work-safety-introduction/
2. https://www.osha.gov/SLTC/oilgaswelldrilling/safetyhazards.html

MAKE SAFE BEHAVIOR THE NORM.

Many injuries can be avoided when an organization has a safety-first culture. Behavior-based safety aims to replace unconscious, unsafe behavior with safe habits that are engaged automatically.

Focus on human motivations and actions, ultimately bringing out the best in all of us.
Business processes should encourage safe behavior and dissuade destructive action. These processes help ensure that people make decisions in which safety practices inform the design and implementation of engineering controls, work practices and business administration.

Consider it an ongoing effort.
Behavior-based safety is not a single training session. It is a way of working day-in and day-out that safety leaders must continually promote for sustainable, positive results.

Realize that this simple concept is harder to implement than it sounds.
In a recent survey conducted by Honeywell, over half of the safety managers interviewed cited their top challenges as training workers to prevent incidents and avoiding employee workplace injuries.

Behavior-based safety isn't something that applies only on the floor or in the field.
It isn't an "attitude adjustment" focused solely on workers. Employees, supervisors and managers should acknowledge their existing behavior and – when called for – make changes across the business.

Workers must be part of the safety conversation.
After all, it is they and their coworkers who are in danger of being injured; plus, they have intimate knowledge of work processes that need improvement. Including workers in discussions fosters commitment and passion, especially in the early phases of training and safety implementation.

Collaboration with workers underscores the business's determination to do things right,
and it reminds employees what is at stake when it comes to their personal safety. Among the 200 industrial leaders surveyed by Honeywell in a recent study, "Ensuring workers wear and use their safety gear properly" was called a top concern. You want the worker to recognize the reasons why it's important to wear a safety mask, even if it's hot outside – whether or not someone is watching.

SO HOW DO YOU PROTECT WORKERS WITH A SAFETY-FIRST CULTURE?
Let's look at the overall goals first, and then examine the best way to put this into practice.

BEHAVIOR-BASED
SAFETY AT A GLANCE

The goal of behavior-based safety is to integrate safety management into a company's core values.

It takes a systematic approach, examining the motivation that underlies behavior and encouraging change based on solid principles about engaging, motivating, assisting, reinforcing and sustaining safe behaviors. It's critical that these changes take place ahead of a downstream event like a turnaround, so that you're not trying to implement a new culture during a high-volume, high-stress time.

At a high level, expect the changes you need to make to improve safety may include:

- **Updating engineering controls,** such as physically changing a machine or work environment.

- **Optimizing administrative controls**, which may include changing how or when workers do their jobs. For example, change work schedules or rotate workers to ensure tired people aren't using power tools or other dangerous equipment.

- **Adjusting work practices**, such as improving education for workers about how to perform their tasks in a manner that reduces exposure to workplace hazards.

It all starts with an understanding of the elements that make up a safe working environment.

The hierarchy of controls is a widely accepted system used in industrial environments to minimize or eliminate exposure to hazards. With any given accident waiting to happen, it's more effective to eliminate the problem (you can't be injured by a danger that doesn't exist in the environment), isolate the problem (such as minimizing the number of people who come in contact with the danger) or find a people-management solution.

PPE IS THE FINAL STEP IN THE HIERARCHY OF CONTROL.

It's the fail-safe for when all the other elements malfunction. Think of it as the last line of defense against injury. When you have done everything reasonably practicable to eliminate a risk, and the team is fitted with good equipment, the risk of injury should truly start at zero. Honeywell provides high-quality gear, designed specifically for hazardous oil and gas environments, but that gear should be used to complement other means of protection.

ELIMINATION

SUBSTITUTION

ENGINEERING CONTROL

PPE
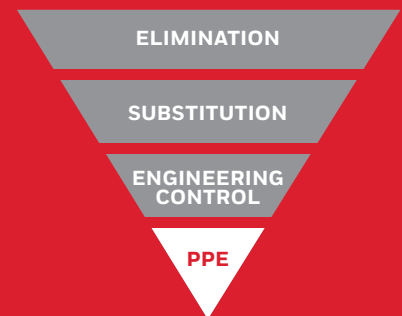
ATTITUDE IS
EVERYTHING

Many organizations manage work – and workers – under conditions of negative reinforcement: "We have to," or "It's policy."

At best, that gets you adequate performance.
Employees do enough to satisfy a compliance standard, but they are not motivated to make the extra effort, whether that applies to safety policies or product quality.

In contrast, positive reinforcement encourages workers to transcend expectations and to invest themselves in their job duties.
Their motivation encourages creative thinking, better decision making and the confidence to communicate without fear (such as pointing out a dangerous element in the work environment). Among other benefits, employees take personal responsibility for safety procedures.

When it comes to behavior-based safety, the message is clear: Invest more in positive reinforcement processes than in negative processes.
Both may be necessary, but a positive approach is more effective. For example, a negative approach is, "If you use a table saw without wearing proper safety glasses, you're fired." In a positive environment, you can be confident that the worker will do the right thing when nobody is watching. When colleagues trust one another, it's easier to gain buy-in.

HOW DO YOU
IMPLEMENT A
BEHAVIOR-BASED
SAFETY PROGRAM?

The first step is to establish a team to design a behavioral-based safety program.

1. Set practical, realistic improvement goals that are based on data.

2. Develop a critical checklist that coordinates with the hierarchy of controls.

3. Put a measurement system into place.

4. Choose target behaviors from safety incidents, safety audits and observations.

5. Use collected data to measure progress, inform changes and give feedback.

6. Train managers, supervisors and employees on their roles and responsibilities.

THERE ARE NO
SILVER BULLETS

Behavior-based safety is part of a bigger safety system, necessary to improve safety and reduce incidents. It's not a silver bullet. You can't simply put together a design team and declare victory. If your behavior-based safety program doesn't have a role for everyone in the organization, you aren't done yet.

1. **Look for systemic problems rather than individual overarching policies.**

2. **Aim for blame-free analysis with a "trust, report and improve cycle."**

3. **Establish an equitable and transparent process for recognizing the difference between the small errors that fallible humans make daily and unsafe or reckless actions.**
   Even then, look at the motivation behind the poor behavior, and work on a solution that addresses the underlying cause.

4. **If workers repeatedly do something dangerous – such as running up the stairs – find out why.**
   What problem are they attempting to solve by running up the stairs? Why are they in such a rush? Learning the answer may help you eliminate the issue, which (as you can see from the hierarchy) is the most efficient answer.

5. **Consider what motivates your workers.**
   If a worker gets a bonus only when she completes a certain number of widgets, her motivation is widget production. Speed matters. If that means defeating a safety mechanism that would otherwise slow her from reaching into scorching-hot equipment, so be it. The worker is willing to bypass a safety mechanism because she's financially motivated.

WHAT'S THE RIGHT ANSWER?

It's not always clear, but we know that if workers are rewarded financially only on production, not on safe production, no number of "Safety First!" posters in the break room will dissuade them from "fixing" that mechanism. Unless there's an injury, they have more motivation to avoid the safety mechanism than to rely on it.

WE'RE ONLY
HUMAN

Do take human weakness into account. No matter how ingrained your culture of safety, accidents are bound to happen. Humans are only human, after all.

We all make errors when we haven't had enough sleep, or we get distracted by anything from a loud noise to a personal problem.
That's why personal protective equipment (PPE) is an essential and integral part of your safety program. Personal protective equipment may be at the bottom of that hierarchy chart, but it's no less important, especially when you are managing a much higher number of workers. More lives are at stake, and good, proactive PPE matters more than ever.

On the days when all the safety policies fail us, PPE becomes the last line of defense against injury, loss and even death.
It is an essential ingredient for anyone who works in dangerous environments. A hard hat, body belt or professional work boots can turn a life-threatening emergency into a "Glad I was wearing that protective gear!" moment.

> ## At Honeywell, we are devoted to providing top-quality equipment that transforms "Oh no!" into "Whew, that was close!" – but we hope you don't really need it very often.

1. [1]The National Safety Council https://injuryfacts.nsc.org/work/work-overview/work-safety-introduction/

THE BOTTOM LINE

Your company invests in good quality equipment because, while better safety practices can reduce the number of injuries, they won't eliminate them all.

PPE is the last line of defense for any safety plan. It's the thing that has to go right when everything else has gone wrong. Honeywell products can give workers a soft landing, literally and figuratively, but it's best to avoid the fall in the first place.

For more information
Visit our site www.sps.honeywell.com or contact a Honeywell representative to learn more about establishing a mature safety environment.

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FUTURE
IS
WHAT
WE
MAKE IT**

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