

# Mindsets that Lead to Unsafe Plant Maintenance, and How to Change Them



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A study from the National Safety Council shows that more than 8 in 10 industrial accidents are caused by unsafe behaviors. While that statistic makes a strong case for changing behaviors to prevent injuries, it does little to illuminate the driving factors behind unsafe behaviors. It also provides no insight into how organizations should go about changing behaviors. Education and awareness are part of the process, but truly impacting safety performance requires more than information sharing. It requires active engagement and commitment from those within an organization. Improving safety in the industrial workplace is a cultural effort that must permeate every level of an organization — from the board room to the boiler room.

To enact broader cultural changes, manufacturing plant operators must have a full understanding of mental mindsets that can influence unsafe behaviors. They must understand how the interplay between plant workers, contractors, supervisors and management can influence these mindsets. When talking specifically about maintenance processes, there are three key mental mindsets that can lead to unsafe behaviors.

## 1. Overconfidence

Manufacturing plants are designed with productivity and efficiency in mind. To that end, tasks assigned to workers are intentionally repetitive and workers gain confidence in their ability to execute work safely and efficiently. Familiarity with the task at hand can lead to overconfidence. When this happens worker safety is at risk.

Keeping workers engaged and focused begins with a job safety analysis of each and every task. Mastery of this process, consistently executed and perfected, is the best defense against overconfidence and complacency. Behavior observations in the field along with regular

coaching and performance feedback help reinforce the need for heightened safety focus. One way to deal with overconfidence is a regular audit of all maintenance procedures which should include assigning a hazard criticality number to maintenance tasks. The audit should consider and identify potential diversions that would distract workers from doing their job. This process will guard against overconfidence and force managers and workers to collaboratively think through possible scenarios that could interrupt routine tasks.

Positive safety behaviors, even the basics, should be rewarded and praised by supervisors and managers. Workers must be empowered to coach each other on positive safety behaviors and be comfortable stopping the work if they observe unsafe practices by fellow co-workers or managers. These steps serve to engage workers in the safety process and to flip the overconfidence mindset.

## 2. Blind Trust

Technology is a powerful tool for improving maintenance efficiency. Jobs that at one time could only be done manually can now be automated. Many plants have an abundance of data available to them at the click of a button. Valves and equipment can be monitored remotely and tracking systems can tell managers exactly when individual plant components should be inspected or replaced. Thanks to new ways to track leading indicators and behaviors, work processes and labor decisions can be managed without ever leaving a computer screen. But when it comes to ensuring safety, technology cannot be followed blindly. “Trust but verify” should be the motto. Lockouts must be verified by employees and not left solely to verification by electronic devices that can fail.

Sitting in front a computer screen and analyzing safety data cannot replace the experience of observing work in the field. Environmental health and safety

(EHS) software programs can provide a wealth of information on the types of injuries and the conditions in which they occurred. Analyzing these lagging indicators can provide clues on plant conditions which can be improved or work tasks that should be executed at different times. This information must be shared to effectively engage craft workers and build critical relationships. Setting aside specific time for management to be in the field will help them verify firsthand what the data is telling them. This time can be spent engaging with labor to talk about safety and manually inspecting facilities for unseen risks.

### 3. Clock Consciousness

When unexpected maintenance issues arise and lead to outages, time is of the essence. But in the rush to get the plant back online, safety may unintentionally take a back seat. This mindset is not always the direct result of specific time demands on a project, but is rather the reflection of a larger cultural approach to dealing with maintenance.

If safety is to be improved and injuries eliminated, this type of thinking cannot be tolerated. Safety cannot be relegated to a business goal, but must be a company's core value if this mentality is to be truly erased. Plant managers need to empower craft workers to be safe first and then focus on finishing the job. Speedy repairs must be accompanied by safe work practices. Plants and companies must demonstrate a commitment to safety over speed. A job safety analysis and planning conversation should be required before any work begins. The efficiencies gained and the accidents prevented from this practice are worth the effort.

Additionally, command posts led by a supervisor should be set up away from emergency work to reduce rushing and poor communication. The supervisor or manager then becomes the focal point for other team members concerned about job progress. This will shield workers from being interrupted or asked repeatedly "how much longer." These practices enhance business performance. In the ongoing battle for top talent, companies who value the safety of their workers are rewarded with loyalty and productivity.

### Making New Safety Habits

In the book, *The Power of Habit*, author Charles Duhigg recounts how former Alcoa CEO Paul O'Neill transformed the safety culture at the more than 100-year-old company in the 1980's and 90's by creating new organizational habits. As O'Neill himself put it, "You can't order people to change. That's not how the brain works. If I could start disrupting the habits around one thing, it would spread throughout the company." O'Neill's relentless commitment to safety led to dramatic increases in safety performance and dramatic improvements in overall company performance.

Organizational habits that contribute to a safety culture are not formed in a day or a single safety session, but over a long period of time. Manufacturing plants and their maintenance partners must commit to putting structures, policies, and programs in place which are focused on changing culture, not just eliminating injuries. Managers should put as much effort into reducing risk as they do to investigating failures and incidents. These habits must be ingrained throughout every level of the organization and both executives and craft workers must be held accountable. That's the difference between truly transforming safety performance and having an organization settle into a mental malaise.