



Weekly Safety Briefings

Week 30 – Monday, July 20 – Friday, July 24, 2026

The Invisible Pull

Introduction – The Invisible Pull: Recognizing Engulfment and Entanglement Hazards

Introduction for Leaders (Use Before Monday's Toolbox Talk)

Purpose for Supervisors:

This week we are talking about one of the most serious and least recognized hazard categories in hands-on work environments: equipment and materials that can pull a person in. Whether that is rotating machinery, in-running nip points, conveyor systems, augers, hydraulic components, or flowing bulk materials like grain, sand, or aggregate, the common thread is this: once the pull begins, there is almost nothing a person can do to stop it. These incidents move from contact to catastrophic injury in fractions of a second. The window for escape closes faster than a person can react.

The reason these hazards claim lives and limbs every year is not primarily carelessness. It is most often a failure to recognize that the hazard exists at all. A rotating shaft looks still when you are not watching it carefully. A conveyor belt looks harmless when material is moving smoothly. A grain bin looks like storage, not like quicksand. Our goal this week is to close that recognition gap before it costs someone everything.

How Leaders Should Frame This Week's Toolbox Talks:

- Do not let familiarity soften this week's message. Use that fact to open the conversation, not to reassure people.
- Be direct about severity. These hazards are in a category where there are no minor incidents. If contact happens, the outcome is serious. The team deserves to hear that plainly.
- Monday carries the weekly challenge for the whole team. Remind them each day to keep the challenge in mind and use Friday to hear what people found.

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Monday – The Hazard You Stop Seeing

Discussion:

If you work around a piece of equipment every single day and nothing has ever happened, it starts to feel normal. It becomes background. You stop seeing the moving parts the same way you did on day one, when everything was unfamiliar and your attention was sharp. That shift is completely natural. It is also what creates the conditions for the worst kind of incident. The hazards we are going to talk about this week, equipment and materials that can pull you in, do not announce themselves. They do not look more dangerous on the day they injure someone than they did the day before. The rotating shaft looks the same. The conveyor looks the same. The auger looks the same. What changes is one small thing: a person's body, clothing, or hand gets close enough to the pull zone, and in that fraction of a second, the equipment does what it was designed to do. It keeps moving. It does not have the ability to stop for you.

A real-world example:

An employee was standing at the operator's station of an Infra Pack shrink wrap machine, preparing to wrap a pallet. After securing the plastic wrap to the base of the pallet, she started the machine, and the turntable began rotating counterclockwise. She observed that the plastic wrap material became caught or lodged between the turntable and the machine decking. To free it, she reached down with her left hand and tried to pull the plastic wrap. As she did this, her hand was pulled into the space between the turntable and the machine decking, and her left index finger was amputated up to the first joint.

This exact mechanism of injury is responsible for multiple industrial and manufacturing injuries. The plastic wrap gets snagged on a powered moving part, a worker instinctively grabs the loose plastic to free it, the machine keeps moving, the hand automatically tightens when something is pulled from it or the plastic tightens around the hand/fingers, and the hand gets pulled into the nip point or the powered rollers.

Weekly Challenge for the Whole Team:

This week, every person on this team has one assignment: identify at least one piece of equipment or one material storage area in your work environment that has pull-in potential and look at it like you are seeing it for the first time. Note what the pull zone is, whether guarding is intact, and whether there is anything about how you work near it that you would want to change. We will come back to what everyone found on Friday.

Discussion prompts:

- "What's one piece of equipment or work area you walk past every day without really looking at anymore? What would it take for you to see it again?"
- "Has familiarity ever caused you, or someone you've worked with, to stand closer to moving equipment or flowing material than you probably should have? What made it feel okay at the time?"
- (challenge-related) "As you go through today, start thinking about which equipment or storage area you'll pick for this week's challenge. What's your first instinct, and why do you think that one came to mind?"

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Tuesday – The Equipment That Can Pull You In

Discussion:

Today let's get specific. There are several categories of equipment and materials that carry pull-in, wrap-in, or engulfment risk, and they show up across a wide range of industries. The more exact we are about what these hazards look like in a real work environment, the better equipped everyone will be to recognize them. The key thing to understand about all of these is the same: they do not give you time to react once contact is made. The human reflex arc, the time it takes for your brain to register a sensation and signal your body to respond, is roughly a quarter of a second under ideal conditions. Most of the machinery in this category can complete a catastrophic entanglement in a fraction of that time. There is no pulling your hand back. There is no time to yell. The only protection is distance and guarding before contact happens.

The major categories of pull-in hazards:

In-running nip points are created wherever two surfaces rotate toward each other, a belt meeting a pulley, or two rollers running in opposite directions. These points create a pinching and pulling action that is almost impossible to escape once contact is made. They exist in conveyors, printing equipment, rollers, mixers, and dozens of other common machines.

Rotating shafts and spindles grab loose material such as clothing, hair, gloves, and rags and wrap it in with terrifying speed. This is one of the most common mechanisms in machinery-related fatalities. A shaft does not need to be spinning fast to be dangerous. A slow-turning shaft has enormous torque and will wrap a person's arm before they feel the pull.

Conveyor belts and take-up mechanisms create pull hazards both at the belt surface and at the tension mechanisms that keep the belt taut. Workers who reach over, under, or between a moving conveyor to clear jams, retrieve items, or make adjustments are at serious risk, especially when the machine is still running.

A real-world example:

Harvey was using a shovel to clear clay buildup off a return idler on the product conveyor belt while the belt was still running. The moving idler caught the shovel and drew it in, and as the shovel was pulled through the pinch point, it pulled Harvey in with it. He was caught between the belt and the idler and died from his injuries.

MSHA's investigation found the accident happened because the mine had no procedure requiring the conveyor to be de-energized and blocked against motion before anyone worked on it — the belt was simply left running while Harvey tried to clear the clay by hand-shoveling.

Team member engagement:

- *"Which of the hazard types we just talked about exist in our specific work environment? Point to something you can see from where you are standing right now."*
- *"Has anyone here ever had a close call with equipment that pulled, grabbed, or caught something, even something small like a sleeve or glove? What happened?"*
- *"What is one machine or area in this facility that you think newer team members might not fully understand the danger of? What would you tell them?"*

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Wednesday – Why Guards Get Removed and Why That Cannot Stand

Discussion:

Machine guarding is the primary engineered control standing between you and the pull-in hazard we talked about yesterday. Guards are designed to create a physical barrier that keeps people out of the danger zone without requiring them to remember to stay back every single time. Done correctly, a guard removes the hazard from the equation entirely. We don't have to think about it because they physically cannot get close enough for contact to occur. And yet guards get removed. They get removed to clear a jam. They get removed because they make an adjustment harder. They get removed because the machine runs a little more smoothly without them. They get removed once, and when nothing happens, they do not go back on. Over time the guard disappears from the machine and from the conversation, and new people join the crew and learn to work around a machine that no longer has its primary protection in place.

The most common reasons guards are removed, and why none of them hold up:

"It slows the job down." Removing a guard does not make the machine faster. It makes the task of accessing a certain point faster. The machine runs at the same speed either way. What changes is whether a person is protected while working near it. A few saved seconds is not a trade worth making.

"We always remove it to clear jams." Clearing jams is exactly the moment when guards are most critical, because it is the moment when a worker's hands are closest to the point of operation. Lockout/tagout exists for this purpose. The procedure is not to remove the guard and reach in. It is too de-energize, lock out, and then clear the jam.

What to do when a guard is missing or has been removed:

- Do not operate the machine without the guard in place. This is not optional and is not a judgment call. It is the standard.
- Report the missing guard immediately. The machine should be taken out of service if necessary, until guarding is restored.
- If a guard has been routinely removed as part of a task, raise it. That is a procedure problem that needs to be corrected at the procedure level, not worked around at the individual level.

A real-world example:

A worker was monitoring potatoes being loaded onto an elevator conveyor when the load jammed the conveyor. Instead of stopping and locking out the machine, he lifted a hinged roller guard and put his leg on the belt several times to try to clear the jam manually. When the jam released, the conveyor grabbed his leg and pulled it into the roller, resulting in an above-the-knee amputation.

Team member engagement:

- *"Is there any equipment in our work area right now that is missing a guard, has a guard that has been modified, or has a guard that is routinely removed as part of the work?"*
- *"If a new person started tomorrow and watched how we work near guarded equipment, what habits would they learn from us, good or bad?"*

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Thursday – Clothing, Jewelry, and the Body Parts We Forget to Protect

Discussion:

We have talked about the equipment. Today let's talk about the other half of the equation: the things we bring to work on our bodies that become the point of contact when a pull-in incident happens. Because most entanglement injuries do not start with a hand or an arm going into a machine. They start with something else, a loose cuff, a dangling lanyard, a ring, a glove that caught on a point that was not obviously dangerous, and then the machine does the rest. This is one of the hardest parts of this topic to get people to take seriously, because the items we are talking about feel harmless. A wedding ring feels harmless. A hoodie drawstring feels harmless. Long hair feels harmless. And in most situations, they are. But near rotating equipment or in-running nip points, they are the thing that starts the chain of events. And once the chain starts, it does not matter how strong you are or how fast you react.

What to wear, and what not to wear, around pull-in hazards:

- Avoid loose-fitting clothing, especially long sleeves with wide cuffs, untucked shirts, or clothing with drawstrings. Fitted clothing that cannot be grabbed by a rotating part significantly reduces contact risk.
- Secure or contain long hair completely. A hair tie is not sufficient near rotating equipment. Hair needs to be tucked into a cap, net, or hat so that no loose length can be pulled toward a moving component.
- Remove rings, watches, and bracelets before working near rotating or pull-in equipment. A ring caught on a rotating shaft can cause a ring avulsion injury, the degloving of a finger or hand, with almost no warning.
- Be careful with gloves near rotating equipment. Gloves protect hands from cuts and abrasion but can increase entanglement risk near rotating parts because they give a rotating component more to grip. Know which tasks require gloves and which require bare hands or tight-fitting alternatives.
- Lanyards, ID badge cords, and safety glasses cords should be tucked in or secured so they cannot swing free near moving equipment.

A real-world example:

Marcus had worked the die-cast line at Ohio Decorative Products for years, and like most days, he leaned in close to check the rotating shaft feeding the equipment. He wasn't wearing a hairnet, and his hair had grown out over the past few months. As he bent toward the machine, a few loose strands brushed against the spinning shaft, and in an instant, they wrapped tight around it. The shaft kept turning, pulling his hair with it, and with each rotation the wrap tightened and drew his head closer to the machine. There was no letting go this time; unlike a tool or a piece of plastic wrap, his own hair had become the thing pulling him in. He was scalped before anyone could reach the emergency stop, and he was rushed first to a local hospital, then flown to a trauma center in Toledo.

Team member engagement:

- *"Be honest: are there things you regularly wear or carry near equipment that could be caught? Rings, bracelets, loose sleeves, long hair? Has anyone ever said anything to you about it?"*
- *"Think about the weekly challenge you have been working on. When you looked at your equipment with fresh eyes, did you notice anything about how your clothing, jewelry, or hair would put you in the pull zone?"*
- *"Is there a habit on this team around PPE or clothing near machinery that we have never formally addressed, something that has just been quietly accepted? What is it?"*

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Friday – Week Wrap-Up

Discussion:

This was a week about a category of hazard that demands our full attention because it gets so little of it. We talked about how familiarity makes dangerous equipment invisible, how the brain stops registering a hazard it has been near a thousand times without incident. We went through the specific types of equipment and materials that can pull a person in, and why contact with any of them moves from first touch to catastrophic injury faster than a human being can react. We talked about guarding, the primary defense that gets removed too easily and replaced too slowly. And we talked about what we bring to work on our bodies that can become the point of first contact.

Here is the thing that matters most about everything we covered this week: none of these incidents require a person to be reckless. They require only proximity and an unguarded moment. The person who gets hurt is often someone experienced, someone competent, someone who knew the equipment well. Knew it so well, in fact, that they stopped treating it as something that required active thought.

Active thought is what keeps people safe around this equipment. Not luck. Not experience. Not the fact that nothing has happened before. Active, deliberate recognition every single time.

Weekly Challenge Report-Back:

At the start of this week, each of you was asked to find at least one piece of equipment or material storage area in your environment and look at it like you were seeing it for the first time. Let's hear what we found.

- *"What equipment or area did you choose? What did you see when you looked at it differently?"*
- *"Did the pull zone look the way you expected, or was it larger, closer, or different than you thought?"*
- *"Was guarding intact? Was there anything about how you normally work near it that you would want to change after looking at it this way?"*
- *"Did anyone find something that needs to be reported or addressed? Let's name it now and make sure it gets handled before end of shift."*

Closing questions:

- *"What equipment in our specific work environment do you see differently after this week's conversations?"*
- *"Is there anyone on this team, a newer person or someone who just rotated into this area, who you are not sure has been told clearly about the pull-in hazards here? What are we going to do about that?"*
- *"What is one habit you are going to build or rebuild coming out of this week that puts active recognition back into your daily routine around this equipment?"*