Workplace Learning System

Weekly Safety Briefings

Week 39 – Monday September 22 - Friday September 26, 2025

What are SIFs and Why do They Matter?

Introduction

Every day across all different industries, workers face risks with life-altering consequences. As a safety professionals, or as a leader, it is our job to protect people from serious injuries and fatalities and STKY situations (stuff that kills you) before they happen.

Monday- What are SIFs?

SIFs is an abbreviation for serious injuries and fatalities. SIFs include life-altering or life-threatening injuries and deaths.

A life altering injury has a significant impact on a person's ability to function and can dramatically change their day-to-day life. These injuries can include brain injuries, amputations, spinal cord injuries, blindness, hearing loss, and severe burns. They can also cause significant psychological trauma, including opiate addiction, depression, and a host of other conditions.

A life-threatening injury is any circumstance that requires immediate medical attention to prevent death. In other words, if an ambulance needs to be called, it's likely a life-threatening injury. While every life-altering injury usually begins as a life-threatening injury; a life-threatening injury doesn't always become a life-altering injury.

According to the Bureau of Labor Statistics (B:S), the most common causes of fatalities in the United States in 2023 were:

- **Transportation incidents** – 1,942 deaths or 37% of all work-related fatalities were caused by some type of transportation incident. These incidents included roadway incidents (1,252 deaths), pedestrian incidents (310 deaths), off-road incidents (205 deaths), aircraft incidents (98 deaths), water vehicle incidents (31 deaths), rail incidents (30 deaths); and non-motorized transportation incidents (14 deaths).
- **Slips, Trips, Falls** – 885 deaths or 17% of all work-related fatalities were caused by slips, trips, or falls. The leading cause of fatality in this category is a fall to a lower level (725 deaths), falls on same level (134 deaths), other (21 deaths), slip, trip or stumble on same level (5 deaths).
- **Exposure to harmful substances or environments** – 820 deaths or 16% of work-related fatalities fall into this category, with the leading cause being exposure to harmful substances (566 deaths), exposure to electrical (142 deaths), temperature extremes (56 deaths), oxygen deficiency (55 deaths).
- **Contact Incidents** – 779 deaths or 15% of work-related fatalities occurred via contact. Struck by propelled, falling or suspended objects accounted for 394 deaths, struck, caught or compressed by running powered equipment (226 deaths), collapse/engulfment (73 deaths), contact with animals (40 deaths), contact with non-running objects or equipment (38 deaths), contact with other person, non-violent or intent unknown (5 deaths).
- **Violent Acts** – 740 work related fatalities occurred in 2023, accounting for 14% of all deaths. Intentional injuries by other person/homicide accounted for 458 deaths, while suicides accounted for 281 deaths.
- **Explosion and Fires** – explosion and fires accounted for 104 work related deaths or 2%. Explosions lead this category for work related fatalities accounting for 66 deaths. Fires (38 deaths).

Tuesday – Why Do SIFs Matter?

The cost of SIFs if very high – but the cost does not just apply to financial costs. When a serious injury or fatality occurs, the impact reaches far beyond the initial incident. These types of incidents are not only devastating to the workers involved and those close to them, but they result in various additional consequences.

Consider the full scope of these tragedies and it becomes clear on why preventing them must be a consistent and top priority for every employer. SIFs have the power to jeopardize the entire foundation of a business, rocking it to its very core.

Behind every serious injury or fatality is a human being – someone's mother, brother, father, sister, son, daughter, or friend. If a team member is killed in an incident, the fallout causes immeasurable devastation for their family, friends and co-workers. For those who survive a serious injury, life may never be the same. Survivors often report long-term or permanent disabilities that make them unable to work or even complete everyday tasks. Many survivors will require financial assistance, ongoing medical care, modifications tot heir home and regular assistance from medical professionals. The psychological issues survivors face may be just as severe and can include:

- Post Traumatic Stress Disorder (PTSD)
- Acute Stress Disorder (ASD)
- Depression
- Anxiety
- Phobias
- Drug and alcohol problems
- Self -harming

These mental and physical challenges have a ripple effect, beginning with the survivor and impacting spouses, children, friends, and coworkers who must now face a harsh new reality.

Beyond the human impact, serious injuries and fatalities have financial repercussions for the businesses involved. These costs are long-term, far-reaching, and have the potential to cripple the business altogether.

Businesses involved in SIFs are often faced with legal liabilities in the form of lawsuits, fines, or even criminal charges if they're found negligent. These costs can add up quickly when you factor in compensation, settlements, defense fees and much higher insurance premiums following a serious injury or fatality. On top of this, productivity losses must be factored in. A serious injury or death will disrupt many aspects of an organization's operation. Work will face interruptions, team members will likely have to be retrained, team morale will suffer, turnover may rise, and overall efficiency will take time to recover.

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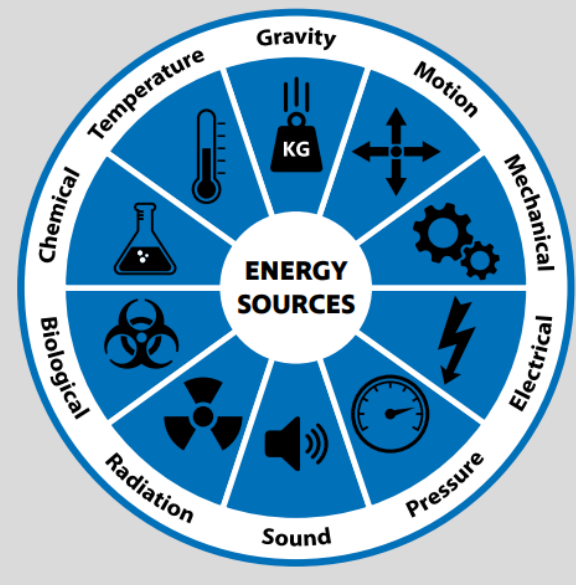
News of a serious injury or fatality will spread rapidly. Media outlets, social platforms, and other networks will amplify the incident far and wide. The fallout may have an immediate and lasting impact on a company's reputation. A single incident can shape public perception and erode trust in a matter of moments.

Stakeholders may question the company's commitment to safety. Customers may stop supporting a company that is seen as careless or reckless. Partnerships could be broken in attempts for partners to remove themselves from the bad PR. Contracts may be voided due to the fallout. Even team members within the company may lose faith in leadership and feel unsafe at work.

Regulatory consequences must also be considered. Agencies like OSHA and MSHA will thoroughly investigate SIFs and issue fines, citations, restrictions, shutdowns, or criminal charges if relevant. Their findings are often made public, further attracting negative attention and damaging business reputations.

Wednesday – Hazard ID and Definitions



We eliminate or mitigate risks by identifying hazards, taking actions to reduce them and sharing what we know.

A potential significant hazard is any condition, action or object that has the potential for an unplanned release of, or unwanted contact with, an energy source that may result in a serious or fatal injury.

The Energy Wheel is used to identify the stuff that can kill you (STKY) and determine what essential controls need to be put in place to ensure when an incident occurs, everyone will have the capacity to recover safely.

Let's look at the energy wheel and discuss examples of those sources.

Pro Tip - Talk with the team about which energy sources they are exposed to often, vs those where exposures are seldom:

- **Gravity** - The force caused by the attraction of all other masses to the mass of the earth. Examples: falling object, collapsing roof and a body tripping or falling. Gravity is an energy often missed when individuals conduct risk assessments.
- **Motion -** The change in position of objects or substances. Examples: vehicle, vessel or equipment movement; flowing water; wind and body positioning when lifting, straining or bending
- **Mechanical -** The energy of the components of a mechanical system, i.e., rotation, vibration or motion within an otherwise stationary piece of equipment or machinery. Examples: rotating equipment, compressed springs, drive belts, conveyors and motors

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- **Electrical** - The presence and flow of an electric charge. Examples: power lines, transformers, static charges, lightning, energized equipment, wiring and batteries
- **Pressure** - Energy applied by a liquid or gas that has been compressed or is under a vacuum. Examples: pressure piping, compressed cylinders, control lines, vessels, tanks, hoses and pneumatic and hydraulic equipment
- **Sound** - Sound is produced when a force causes an object or substance to vibrate and the energy is transferred through the substance in waves. Examples: equipment noise, impact noise, vibration, high-pressure release and the impact of noise to communication
- **Radiation** - The energy emitted from radioactive elements or sources and naturally occurring radioactive materials (NORM). Examples: lighting issues, welding arcs, solar rays, microwaves, lasers, X-rays and NORM scale
- **Biological** - Living organisms that can present a hazard. Examples: animals, bacteria, viruses, insects, blood-borne pathogens, improperly handled food and contaminated water
- **Chemical** -The energy present in chemicals that inherently or through reaction has the potential to create a physical or health hazard to people. Examples: flammable vapors, reactive hazards, carcinogens or other toxic compounds, corrosives, pyrophorics, combustibles, oxygen-deficient atmospheres, welding fumes and dusts
- **Temperature** -The measurement of differences in the thermal energy of objects or the environment which the human body senses as either heat or cold. Examples: open flame; ignition sources; hot or cold surfaces, liquids or gases; steam; friction; and general environmental and weather conditions

Serious Injuries and Fatalities (SIFs) require a special and infrequent configuration of factors:

1. Hazardous energy must be present.
   - Various risk amplifiers are likely present. Examples: non-routine work, Human Stressors – (physical limitations, environmental, fatigue), Production Pressures, Inadequate supervision and follow-through, working alone, Inadequate operating procedures, training, and follow-up, poor equipment or task design, new employees, lack of engineering controls, difficult tasks that require significant concentration.
2. The essential controls designed to protect against injury must fail; and this combination is allowed to continue, resulting in a SIF

<u>Thursday – How Can SIFs be Prevented</u>

Risk assessments can be a vital metric for leaders to track because they offer insight into the most serious and high consequence risks within an organization. SIFs are clearly much more catastrophic when compared to minor injuries and near misses. Since SIFs do not occur as frequently as minor injuries and near misses, the available data to review SIFs can be sparse. Focusing in on risk assessments can help you pinpoint weaknesses in need of immediate attention and prevent these devastating events from occurring down the line.

Human error has been shown to be a factor in nearly every serious incident and fatality. Distractions can happen to anyone. In fact, the more familiar we are with the task, the easier it is to lose focus. Loss of focus can lead to an error. Even with established worker qualifications and the best tools and experience to guide us, we must

also be personally ready to perform each job at our highest capacity. The risk for error and injury goes up across all experience levels when individual or organizational factors, task demands, or the work environment interfere with our ability to focus on our tasks.

Essential Controls are controls at the worksite that directly targets the stuff that can kill or seriously injure you (STKY), and when installed, verified, and used properly, are not vulnerable to human error. These controls can either eliminate a coworker's exposure to a STKY hazard or provide them the capacity to safely recover should a high-energy accident occur.

What are NOT considered essential controls? Examples include:

- Rules
- Situational awareness
- Spotters
- Three-way communication
- Training, and warning signs.

These safeguards are important and will always be a part of prevention efforts, but they are vulnerable to human error and cannot be what we solely rely on to keep us safe from lethal high-energy hazards.

Start When Safe. Conduct pre-job safety briefings and assessments prior to work activities. Ask the following questions before starting work activities:

1. Task Experience & Knowledge - Do I have the experience, qualification, and competency necessary to identify the stuff that kills you (STKY) in the task about to be performed?
2. Identify the Stuff That Kills You (STKY)- What stuff on this worksite/job can seriously injure or kill me? (use Energy Wheel for Hazard Identification) Can I remove any of them?
3. Put Essential Controls in Place – What essential controls do I need to put in place before I start work that directly targets all STKY hazards to ensure WHEN an incident occurs, I and others will have the capacity to safely recover?
4. Maintain a Questioning Attitude – Ask yourself, are these controls enough? Did I test/verify their presence and integrity? Are you confident that they will meet the demands of your work/site conditions?
5. When the job scope has changed, take at least two minutes to reassess the hazards. The key objective is to improve your Situational Awareness of any new STKY hazards that may be present and verify that the crew's technical knowledge and task experience are still adequately matched to the task being performed.

Friday – Human Performance Assessment

Assess the Individual Factors

1. Are you feeling stressed, distracted or worried due to work or personal issues?
2. Are you excessively fatigued, or do you have many things distracting you from the task at hand?

Assess Task Demands

1. Are the procedures and instructions for the task unclear?
2. Does the task require high concentration or multitasking?
3. Does the task require more time than allowed?
4. Are you capable of performing the task but feel that you require more guidance?

Organizational Factors

1. Do you feel insecure about your ability to use Stop Work Authority?
2. Are you unclear about your roles and responsibilities?
3. Are you uncomfortable communicating with your peers and supervisors?
4. Do you feel pressured to take shortcuts?

Work Environment

1. Is the environment (temperature, ventilation, room for movement, egress, lighting or noise level) different from what was expected or planned for?
2. Are you in an environment prone to unanticipated distractions?
3. Are you working in unpredictable or constantly changing conditions?
4. Are labels, signs or displays inadequate?

If you can answer "yes" to any of the assessment questions, it may be time to seek additional help. Preventive actions you or your supervisor can take to reduce the risks to working safely include:

- Get help.
- Get clarification.
- Get focused.
- Defer the work.