Above and Beyond: Rising to the Challenge of SIF Prevention in the Utility Industry

White Paper

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Few industries experience the range of challenges the utility industry faces every day. Workers are often required to interact with high-voltage equipment and engage with live natural gas lines. Power lines overrunning rugged terrain create another set of serious risks. The industry is experiencing an alarming talent shortage, and the multigenerational workforce has implications for attraction, retention, peer-to-peer engagement, and culture.

Is there a solution? Indeed. It goes beyond PPE, beyond safety campaigns, beyond training. Instead, it's a holistic approach that:

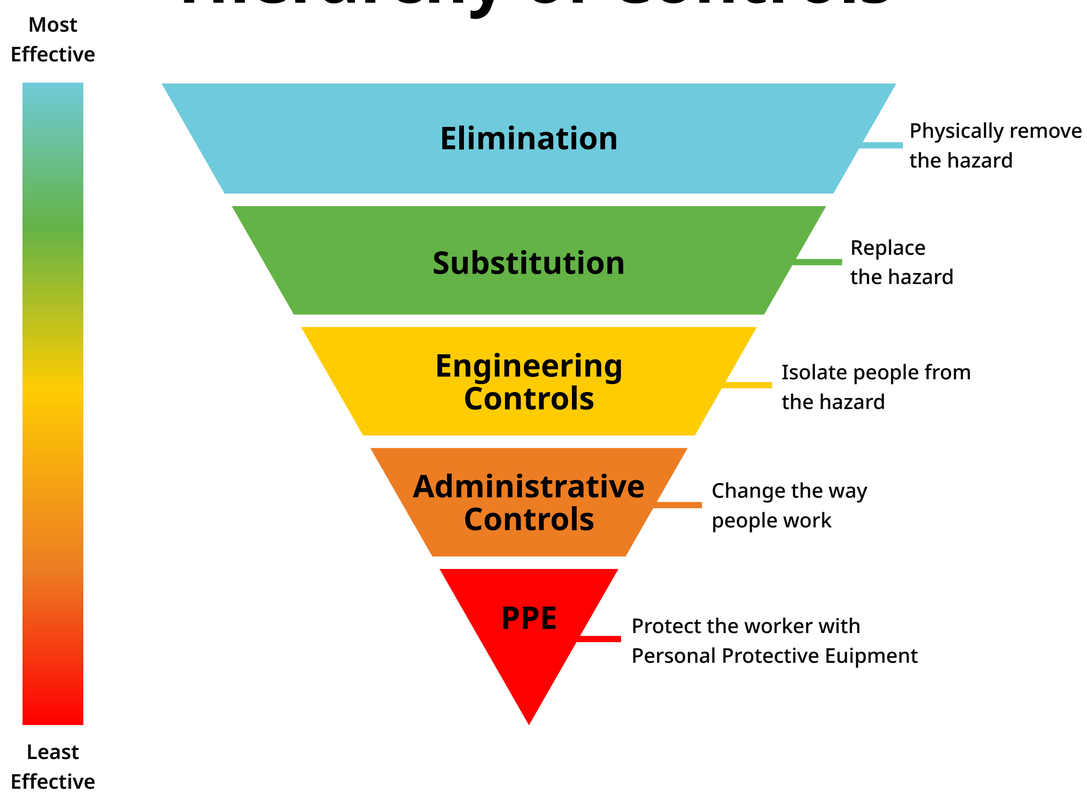
- Operationalizes serious injury and fatality (SIF) prevention at the organizational level through systems, processes, and controls
- Engages every individual at the human, brain-centered level
- Becomes embedded at the cultural level as an intrinsic part of the organization

It is both proactive and responsive—and it works. Here's how.

Today's Reality: What's Working, What's Not

Utility industry leaders and safety professionals understand that all levels of the organization must personally pay attention to SIF prevention. Yet, serious injuries and fatalities have been steadily increasing year over year in the utilities sector since 2011, according to the Bureau of Labor Statistics. The problem is getting worse, and the ability to attract and retain uniquely skilled workers is exacerbated by these dangerous conditions.

Utility companies have done an excellent job reducing risks at lower levels on the hierarchy of controls. Approaches to address risks associated with storm recovery, tree trimming, and distribution line and substation servicing have had a positive impact.



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But despite these efforts to mitigate risk by along all levels of the Hierarchy of Controls, research shows that our brains are working against us. We are constantly normalizing risk, our vision systems fail to recognize changes in risk, and our imperfect memories are allowing for wider and wider deviations from standards. Without understanding how brain-centric hazards can be our least controlled risk, employees may miss or ignore important warning signs.

Closing the Gaps: Prevention is Table Stakes

Employers have a minimum responsibility to do everything within their ability to keep workers alive. An effective SIF strategy gives an organization and its workers confidence they are effectively controlling SIF risks. This is accomplished through analyzing the current state, enhancing human capability, aligning on systems control, and acting on both leading and lagging indicators to mitigate SIF risks. Ultimately, the SIF strategy encompasses human reliability skills, safety systems, and culture to achieve greater control of SIF risks.

Operationalizing an effective SIF prevention strategy requires:

- Embedding controls into all systems
- Implementing a process to verify critical controls
- Improving human effectiveness at recognizing and reacting to risks
- Building a culture that supports SIF exposure identification and mitigation

The benefits of such an approach:

- Uniformity across all levels of your organization flattens the change curve and increases change adoption.
- Expertise at all levels in the identification of SIF exposures and precursors creates agency and a sense of ownership among your workforce, improving employee engagement and trust.
- Meaningful leading SIF metrics exponentially increase your ability to create proactive, preventive action plans.
- Sound governance creates programs that are sustainable.

Accounting for Wild Cards: Scheduled and Unscheduled SIF Exposure

A proactive approach to SIF prevention must look broader and deeper. Understanding the difference between scheduled and unscheduled SIF exposures opens the door to create specific strategies for both.

Scheduled SIF exposures are known about and planned for in advance. Examples are performing a known LOTO activity or a pre-planned confined-space entry. For these events you can prepare the area, do an effective briefing, set up specific controls, etc. You can control the known risks.

Unscheduled SIF exposures occur in the moment, and the front-line employee must see it occur, recognize the change in exposure in the moment, take action to pause the work, and adjust the controls for the new exposure. Examples of unscheduled SIF exposures are changes in the weather, changes in personnel in the moment, a mentally fatigued coworker, or an equipment malfunction.

Most organizations have done significant work to control scheduled SIF exposure, leaving the area of biggest opportunity in the control of unscheduled SIF exposures.

To do so, proactive SIF prevention must consider the human performance element and infuse proactive SIF prevention into every safety management system, including:

1. Use of critical control checklists to conduct observations of scheduled work with SIF potential
2. Use of briefings and work planning to identify and control SIF risks
3. Training, observation, and feedback to build employees' capability to recognize, pause, and team effectively

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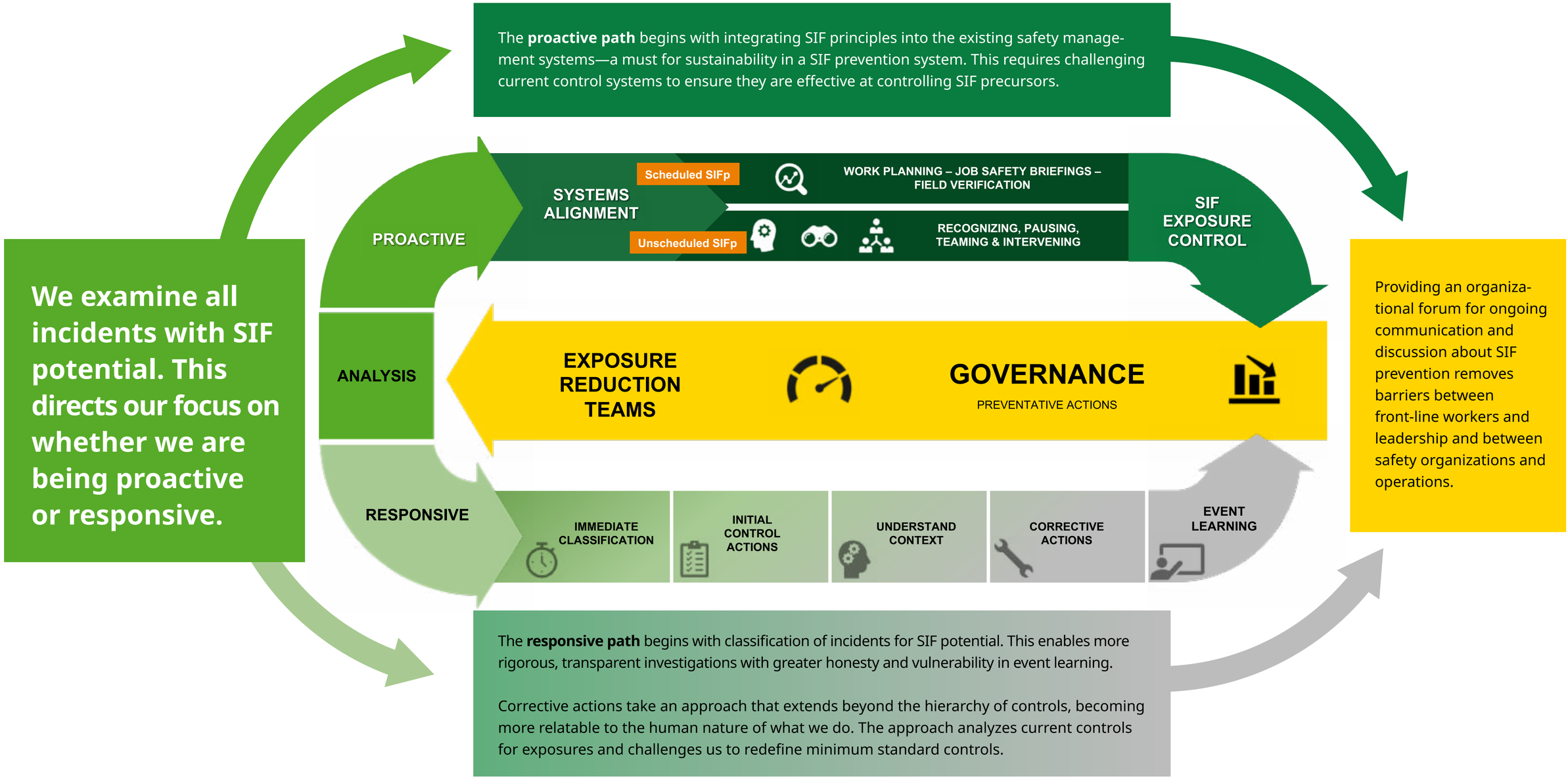
DEKRA's SIF Prevention System at Work

When organizations try to create a process without developing strategy, it can confuse, reduce confidence, and diminish adoption. The SIF prevention process road map summarizes the steps and stages for an organization to gain confidence they are controlling SIF risks. Well-executed strategy includes both responsive and proactive elements, which reinforce a culture of SIF exposure recognition and pausing work. These two paths, along with robust event-learning teams and effective organizational governance, result in effective SIF exposure control.



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To customize a SIF prevention strategy and process for your company, road map execution is tailored by:

1. Defining organizational scope
2. Establishing process scope
3. Developing rollout approach
4. Creating engagement methodology
5. Inventorying resources
6. Timelining the rollout
7. Gaining stakeholder commitment
8. Building an action plan

And as always in organizational change efforts, leading from the top is critical. Most technical aspects of SIF prevention can be assigned to individual contributors, but transformational, symbolic leadership cannot be delegated.

Prepare for Potential Implementation Challenges

It's easy to underestimate some of the significant challenges encountered when implementing a SIF prevention process. Anticipating challenges up front and being relentless in addressing them proactively as part of the implementation process is key.

These common challenges will trip up your efforts—be prepared for them and have a plan for preventing them.

Challenge 1: Changing the definition of a safe day

What constitutes a safe day needs to change from "No one got hurt today" to "We worked free of any uncontrolled exposures today."

"No one got hurt today" is a great outcome but a poor measure of an effective process because there are two ways to avoid injury: safety or luck.

Relying on luck is a bad strategy. Focusing on lagging indicators of safety is deeply ingrained in organizational success metrics and takes time to change.

Challenge 2: Changing the perception of risk

People's perception of risk needs to change from "It will not happen to me because it hasn't happened yet" to "If you have enough exposures to the risk, it will happen, and the consequences will be significant."

Leaders can change the perception of risk in two ways:

- Using event-learning teams to reduce the risk
- Having routine, serious discussion about the consequences of the potential injury

Challenge 3: Changing the lens

Once you start looking at potential risk versus actual incidents, everything changes. This is a profound and fundamental change. At its core, it is a reallocation of resources, providing more focus and attention on SIF potential exposures, including what you measure and what you celebrate.

Challenge 4: Changing the view of SIF prevention

SIF prevention needs to be viewed as a process, not an event. Prevention can't be accomplished by responding to the last SIF injury. Waiting for an injury to draw an actionable conclusion is the most dangerous exposure in the world. Each injury regresses workers' sense of well-being and begins to create an organizational numbness around safety and injury.

Challenge 5: Changing the safety management systems

If SIF prevention is to become a sustainable process, it must be integrated into the safety management systems. This requires challenging old paradigms that are deeply embedded in the current systems. Anything we do in safety must feel like a natural evolution from what we've already done. New systems must flow easily from past processes to create early and easy adoption.

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Are you ready?

For implementation to be effective, an organization needs to truly think progressively about SIF prevention. Start by asking these questions:’

- Do we talk about “managing risk” or “avoiding injury”?
- Do we review the potential for injury, or do we focus on rule compliance?
- Do we look at potential severity even when the actual outcome was minor?
- Do we think in terms of a SIF prevention process, or just respond to the last SIF injury?
- Do we look for opportunities to embed SIF prevention into our safety management systems?
- Do we use event-learning teams to transform our risk profile?
- Do we focus on increasing our employees’ capability to recognize and take action to control risk in the moment?

When an organization takes a deep look into how it operates, thinks, acts, and talks about safety, it is ready to implement a sustainable SIF prevention process that will change the culture and save peoples’ lives.

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The Bottom Line

An effective SIF strategy includes both reactive and proactive actions focused on systems, human and organizational performance (HOP), and culture. When these factors are present, so is safety.

Is your company rising to the challenge of SIF prevention?

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