



NSC SIF Prevention Model Testing Info Packet

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SIF and pSIF Overview

In the context of this model, a serious incident and fatality (SIF) refers to workplace incidents that result in death, are life-threatening or cause life-altering harm. These events often involve high-energy sources, working at heights, electrical exposure, heavy equipment or confined spaces, and they can have long-term consequences not just for the individuals involved but also for their families, co-workers and organizations.

SIFs encompass a range of scenarios, including serious injuries and illnesses, fatalities, major environmental events, fires, explosions and substantial property damage. A life-altering injury is defined as one that leads to permanent loss of a body part, organ or function. In addition to SIFs, the NSC model also focuses on the following areas:

pSIF (potential SIFs):

- Incidents that have the potential to have resulted in a serious injury or fatality due to the pre-cursors or sources of energy involved (e.g., Work at heights, electrical, rigging, lifting, machine intervention, etc.)
- pSIF- Controlled –
 - Extent of incident injury mitigated due to controls and defenses that were in place
- pSIF- Uncontrolled –
 - Extent of incident injury mitigated due to chance or luck

Risk:

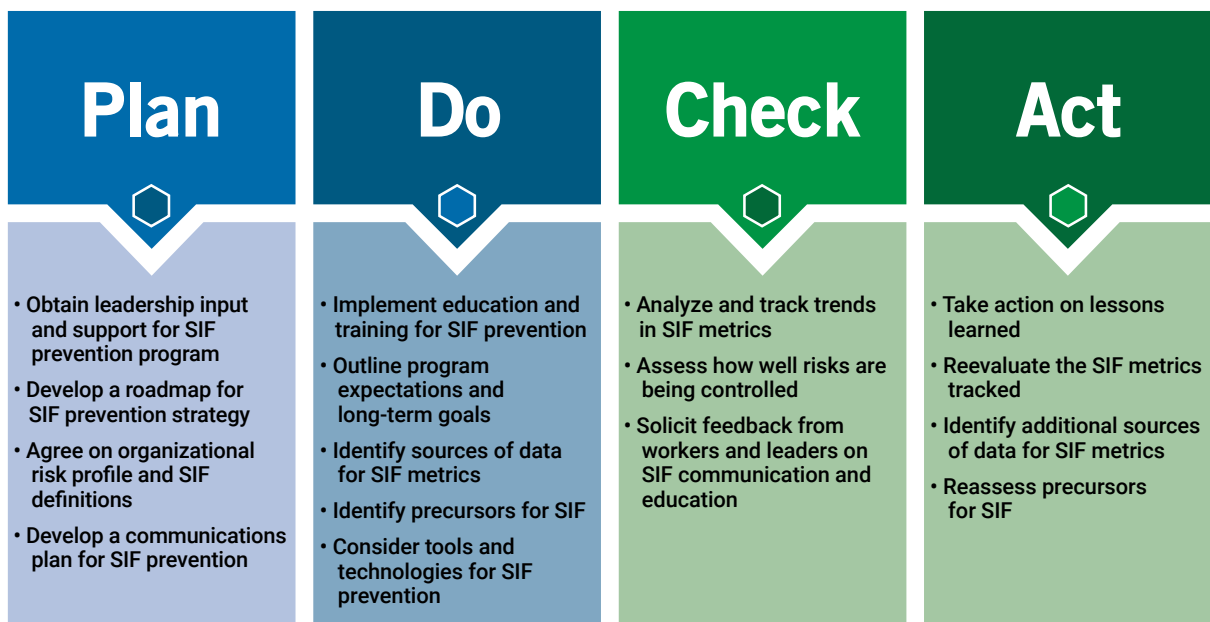
- The chance or probability that a person will be harmed or experience an adverse safety or health effect if exposed to a hazard
- It may also apply to situations with property or equipment loss, or harmful effects on the environment
- Risk is expressed as a probability or likelihood of developing a disease or getting injured, whereas hazard refers to the physical or chemical agent responsible
- Factors that influence the degree or likelihood of risk are:
 - The nature of the exposure: how much a person is exposed to a hazardous thing or condition (e.g., several times a day or once a year),
 - How the person is exposed (e.g., breathing in a vapor, skin contact), and
 - The severity of the effect. For example, one substance may cause skin cancer, while another may cause skin irritation. Cancer is a much more serious effect than irritation
 - Risk is also impacted by an organization's culture, management system, process conditions and human factors

NSC SIF Prevention Model Overview

The NSC SIF Prevention Model is a structured approach designed to help organizations identify, assess and control hazards that can lead to SIFs. It provides a framework for proactive risk management using a PLAN-DO-CHECK-ACT (PDCA) cycle.

Key Steps in the Model:

- 1. PLAN:** Assess organizational readiness for SIF prevention.
- 2. DO:** Identify and mitigate SIF hazards.
- 3. CHECK:** Monitor and verify the effectiveness of controls.
- 4. ACT:** Drive continuous improvement.



Why It Matters:

This model is designed to assess risk by evaluating and controlling existing and potential workplace hazards and events. It does so by identifying and assessing hazards, determining frequency of exposure, and evaluating the effectiveness of hazard controls. The model also facilitates setting priorities for needed corrective actions (based on the hierarchy of controls). And, finally, it creates a framework for continuous improvement.

The model is adaptable for organizations at any level of safety maturity and can be tested to refine processes before full-scale adoption.

Why Participate?

Join a national effort to reduce SIFs by implementing cutting-edge prevention tools and strategies. Help shape a model built on real-world feedback while improving your own safety outcomes. Gain:

- Access to the NSC SIF Prevention Model and tools
- Expert guidance on risk assessment and hazard controls
- Opportunities to benchmark with peers and influence a nationally recognized model
- Stronger safety culture and increased worker engagement

This is Right for Your Organization if it:

- Has leadership committed to safety and willing to invest in improvement
- Prioritizes proactive risk prevention over reactive compliance
- Has a functioning or developing safety and health program
- Is open to testing new safety tools and practices
- Can track and share performance data, near misses and lessons learned
- Has framework experience (OSHA, VPP, SHARP, ISO) - helpful but not required

What You'll Do

- Test risk assessment tools and hazard controls
- Monitor and share control effectiveness
- Engage workers and learning team
- Conduct perception surveys and risk assessments
- Join periodic reviews with NSC
- Share key metrics for progress tracking

We're Looking for Organizations Committed to:

- Continuous learning and improvement
- Collaborative development of a safety model that works for all industries
- Making a difference in the lives of workers by preventing life-altering incidents

Roles and Responsibilities During Testing

Successful implementation of the NSC SIF Prevention Model requires commitment and collaboration from all levels of an organization.

Senior Leadership

- Provide resources and support for the SIF Prevention Model implementation
- Set safety expectations and integrate SIF prevention into company culture

Safety and Health Team

- Conduct hazard identification and risk assessments
- Train workers and supervisors on SIF prevention strategies
- Monitor and verify the effectiveness of safety controls

Supervisors and Team Leaders

- Communicate safety expectations to workers
- Ensure safety measures are followed on the job
- Encourage worker participation in safety programs

Frontline Workers and Maintenance Personnel

- Actively participate in hazard identification and risk assessment
- Report near misses and unsafe conditions
- Follow all safety protocols and engage in training

Human Resources and Training Departments

- Support engagement strategies to strengthen safety culture

Contractors and Temporary Workers

- Follow site-specific SIF prevention guidelines
- Participate in safety briefings and report hazards

Steps to Get Involved

Ready to test the NSC SIF Prevention Model?

Before filling out the application below, please ensure the following:

1. Review the Model

- Read through the [NSC SIF Prevention Model](#) materials to understand the full scope

2. Confirm Resource Readiness

- Make sure your organization is financially and operationally prepared to implement the NSC SIF Prevention Model

3. Choose Your Implementation Path

- Based on your current capacity and needs, decide whether your company will adopt the full model or specific components

4. Gain Leadership Support

- Share this packet with senior leadership and secure approval for implementation

Once You're Ready,
[Submit the Application](#)