PSIF

Potential Serious Injury & Fatality

AI RESEARCH

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INTERNAL REFERENCE DOCUMENT

1. PURPOSE

This document provides a clear, field-ready definition of Potential Serious Injury and Fatality (PSIF) and practical guidance for consistent classification across safety programs.

2. CORE DEFINITIONS

SIF (Serious Injury or Fatality)

A SIF is an actual workplace event resulting in:

- **Fatality**
- **Life-threatening injury**
- **Life-altering injury (permanent impairment)**

SIF is a **lagging indicator** — it reflects events that have already occurred.

PSIF (Potential Serious Injury or Fatality)

A PSIF is any incident, near miss, or unsafe condition where:

1	A worker was credibly exposed (i.e., within the path of potential energy transfer) to a high-energy hazard
2	Effective physical (engineered) controls were absent, failed, or bypassed
3	A serious outcome was avoided due to chance rather than control effectiveness

3. SIMPLIFIED TEST

This is the primary classification tool. **Classify as PSIF if ALL answers are YES:**

1	Was there a credible high-energy hazard?
2	Was the worker credibly exposed (i.e., within the path of potential energy transfer) under the actual conditions present?
3	Were physical (engineered) controls missing, ineffective, or bypassed?
4	Could a small change in conditions have resulted in serious harm?

If unsure → classify as PSIF.
It is better to over-classify and investigate than to miss a potential fatality precursor.
This test ignores outcome severity — remember that minor injuries can still be PSIFs.

4. HIGH-ENERGY HAZARDS

The following are common high-energy hazard categories relevant to PSIF classification:

- Falls from height
- Electrical energy
- Moving equipment / vehicles
- Struck-by / caught-between
- Confined space hazards
- Hazardous chemicals

Energy thresholds (e.g., ~1,500 joules) are guidance only and must not be used as strict cutoffs. For chemical, electrical, and thermal hazards, assess harm potential based on the specific energy type rather than a joule value.

5. CONTROLS CLARIFICATION

DIRECT CONTROLS (Required for PSIF Prevention)	INDIRECT CONTROLS (Support Only)
Physical or engineered barriers that prevent the transfer of energy to a worker	*Measures that influence behavior but do not physically prevent energy transfer*
■ Machine guards ■ Fall protection systems ■ Electrical isolation ■ Lockout/tagout devices (the physical isolation — not the procedure alone)	■ Procedures ■ Training ■ Policies ■ Signage

Procedures alone are NOT sufficient to prevent PSIF exposure.

6. KEY DISTINCTIONS

Understanding the difference between Exposure, PSIF, and an effective-control event is critical to accurate classification.

Exposure	PSIF	Not a PSIF
High-energy hazard present	High-energy event or credible exposure occurred	High energy released
Energy NOT released	Controls failed or were absent	Effective direct control prevented harm

PSIF classification may apply even if energy was not released, provided credible exposure existed and controls were ineffective.

7. FRAMEWORK GUIDANCE

Two principal frameworks are used in North America for PSIF classification. Organizations should standardize on one model for consistent classification.

	Campbell / NSC	EEI / SCL
Basis	Outcome potential	Energy level + control state
Best for	Culture and strategy	Classification and analytics
Threshold	Qualitative	Quantitative (~1,500 J)

Recommendation: Organizations should standardize on one model (preferably EEI/SCL) for its structured, reproducible decision logic.

8. PRACTICAL EXAMPLES

Example 1 — PSIF
Worker exposed to suspended load with no exclusion zone. Load shifts but does not strike worker.
→ **PSIF (credible exposure + no effective control)**

Example 2 — Not a PSIF
Tool dropped from height but barricade prevented access below.
→ **Not PSIF (direct control worked as intended)**

Example 3 — Borderline
Worker near energized panel; panel closed but not locked. Borderline because the panel provides partial control, but credible access to energy may still exist depending on conditions (e.g., access, work activity, proximity).
→ **Classify as PSIF if credible exposure exists**

9. IMPORTANT NOTES

- PSIF is not a regulatory classification
- It does not replace OSHA or WCB reporting requirements
- PSIF events may still trigger regulatory reporting under other applicable rules
- Regulatory requirements vary by jurisdiction, including Canadian provincial OHS laws
- PSIF classification is used for prevention, not compliance

10. GUIDING PRINCIPLE

> **Focus on conditions, not outcomes.**
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> Low injury rates do not mean low fatality risk.
>
> Preventing PSIF events is key to reducing fatalities.