

# The Big Switch: Why OSH Professionals Need to Shift Their Organizations from Compliance to Risk

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Why Now?

# How “Safe” Are We?

Traditional focus on injury rate reduction  
forces after-the-fact approach

- “Lagging” indicators and OSHA incident rates

Low level controls not effective in  
preventing FSIs

- Missing “critical to safety” controls

# How “Safe” Are We?

## Incident rate reductions slowing down

- Serious Injuries – 2018
  - First year since 2012 with no decline
  - DART and LTR Rates were unchanged

## Fatality and serious incident (FSI) rates steady or increasing

- Fatalities
  - 5,147 in 2017
  - Two years in a row of over 5,000
  - Fatality rate 3.5 – 2<sup>nd</sup> highest since 2010



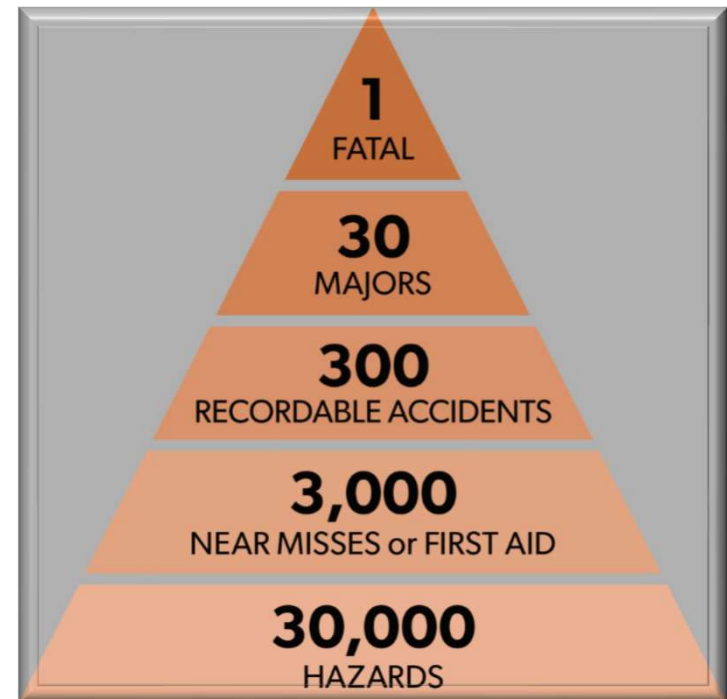
**Should we redefine what “safe” means?**

# Redefining What “Safe” Means

## → Rethinking Heinrich’s Pyramid

- Accurate descriptively – ratios of incident types
- Not accurate predictively – particularly for FSIs

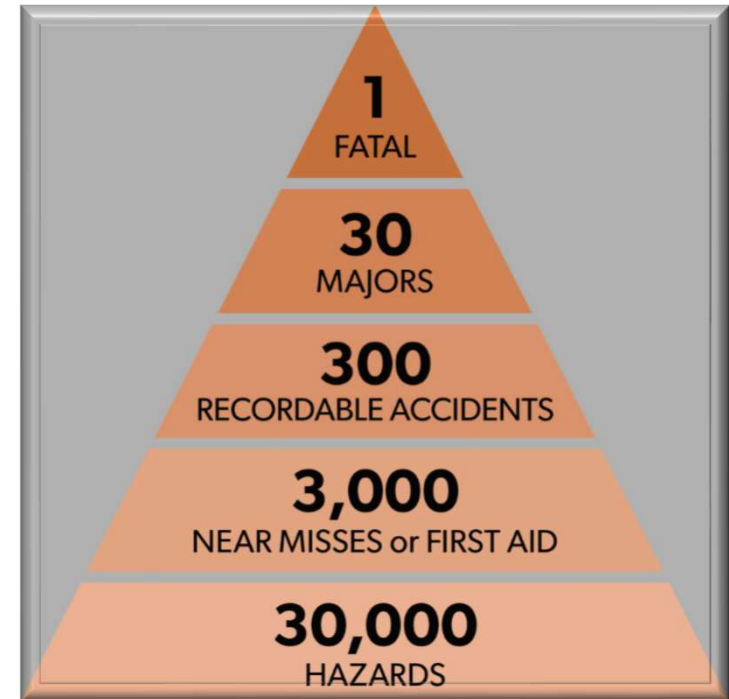
Frequency reduction does not result in severity reduction



# Redefining What “Safe” Means

## → Rethinking Heinrich’s Pyramid

What he really meant:  
Rather than counting numbers, much could be learned by examining the “vivid details of a single event” and understanding systemic problems.

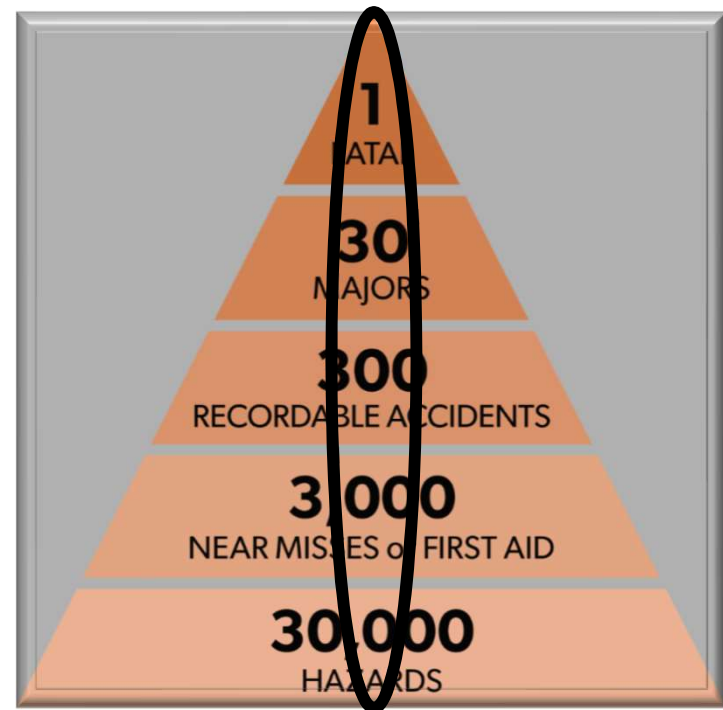


# Redefining What “Safe” Means

## → Rethinking Heinrich’s Pyramid

What we know now:

21% of all types of incidents have the potential to become an FSI, based on known precursors or causes.



# Redefining What “Safe” Means

→ Relying on “operator error” as incident causation

“The supposition is prevalent throughout the world that there would be no problems with production or service *[or injuries or property damage]* if only our production workers would do their jobs in the way that we taught. Pleasant dreams. The workers are handicapped by the system and the system belongs to management.”

Deming

# Redefining What “Safe” Means

→ Relying on “operator error” as incident causation

A factor in nearly every incident – not the only cause – never the “root” cause

- Frequency of “operator error” as the first (often last and only) cause identified
- Flawed incident investigations reinforce this
- Lack of multi-causal analysis

# Redefining What “Safe” Means

→ Relying on “operator error” as incident causation

Expecting 100% of your workers to behave “safely” 100% of the time?



“Common sense  
is not so common”

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# Redefining What “Safe” Means

→ Expecting incident rates to drive safety performance



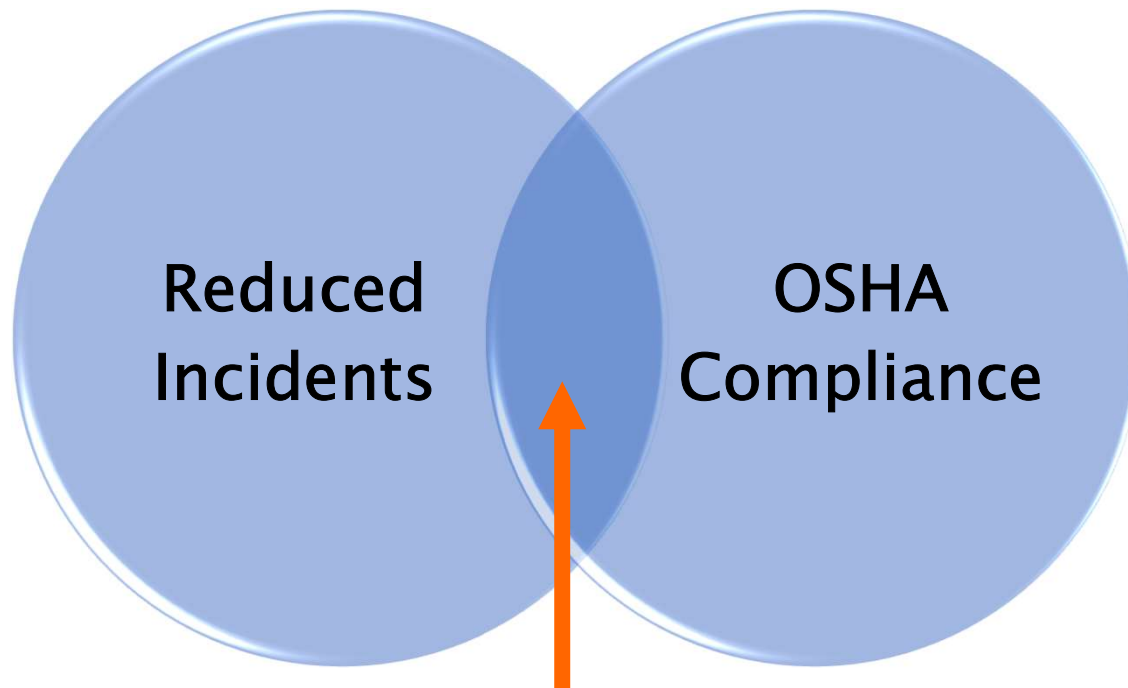
No relationship between OSHA injury rates and FSIs

Absence of minor injuries is NOT predictive of the absence of future FSIs

Presence of minor injuries is NOT predictive of the presence of future FSIs

# Redefining What “Safe” Means

→ Expecting incident rates to drive safety performance



The sweet spot is too small.

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Got a better idea?



# Transformation to Risk

→ Shift focus from compliance to risk

“Reliance on traditional approaches to fatality prevention has not always proven effective. This fact has been demonstrated by many companies, including some thought of as top performers in safety and health, as they continue to experience fatalities, while at the same time achieving benchmark performance in reducing less-serious injuries and illnesses.”

Lon Ferguson  
Former Chair/IUP Safety Sciences Department  
2012 Fatality Prevention Forum

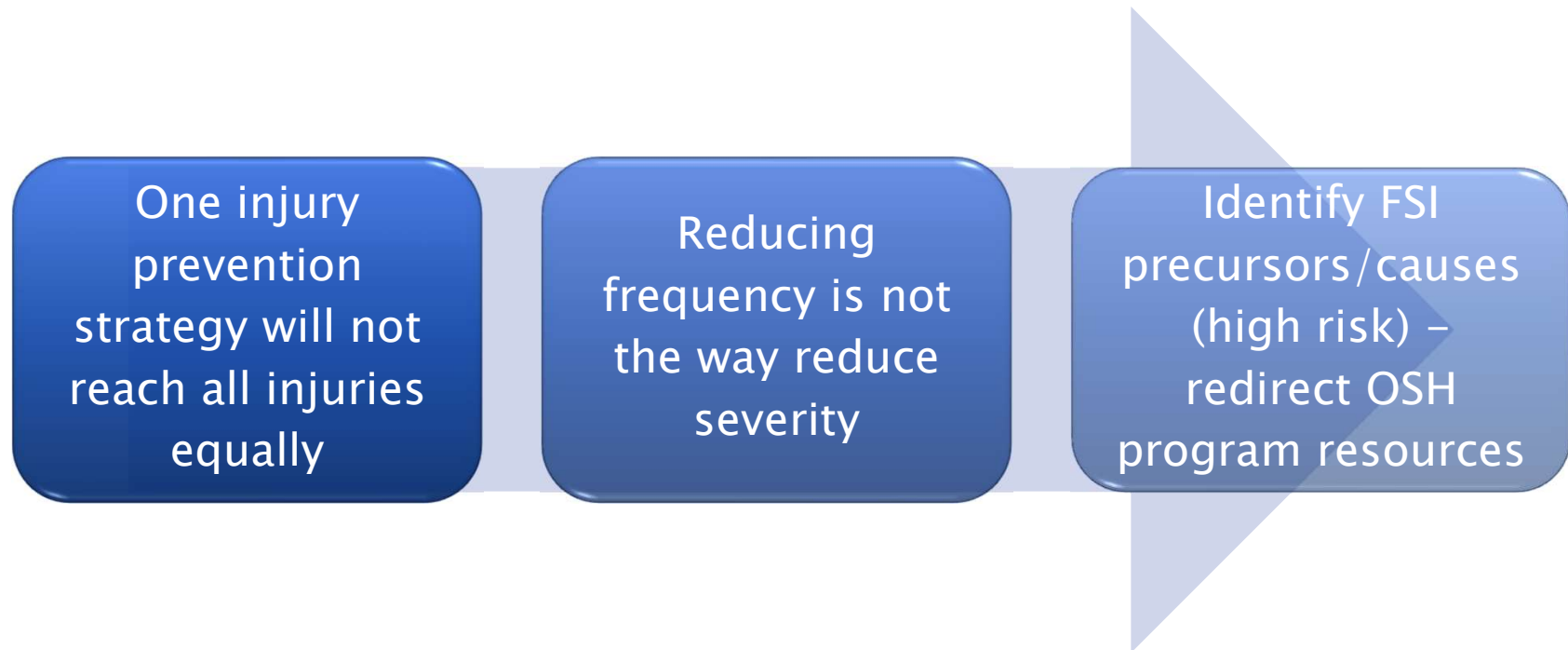
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# Transformation to Risk

## → The New Paradigms



# Common FSI Precursors

Unusual and non-routine work

Non-production activities

In-plant modification/construction operations

Outage work – repair, maintenance, start-ups

High energy sources are present

Upsets occurring

# Common FSI Causes

Struck by/crushed by objects

Operation of/interaction with mechanical equipment

Falls from height or same level

Electrical contact

Contact with non-electrical hazardous energy

Explosions and fires

# Transformation to Risk

→ Risk is the Word!

Risk-based approaches provide the best way forward to prevent FSIs.

Embed risk analysis techniques into organizational operations and culture.

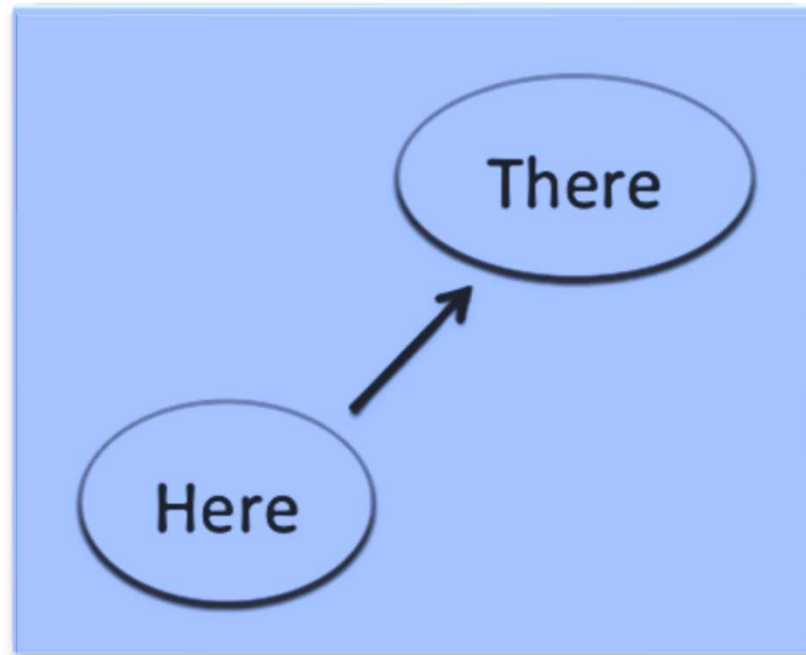
Employees must have risk analysis mind-set and be skilled at it.

# Transformation to Risk

- Risk management approaches embedded in safety management systems
- Defines acceptable risk

## ISO/ANSI Consensus Standards, not OSHA Regulations

- Risk Management – ANSI/ASSP Z690 or ISO 31000
- Safety Management Systems – ANSI/ASSP Z10 or ISO 45001
- Prevention through Design – ANSI/ASSP Z590.3



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# Drilling it Down – Five Impactful Steps



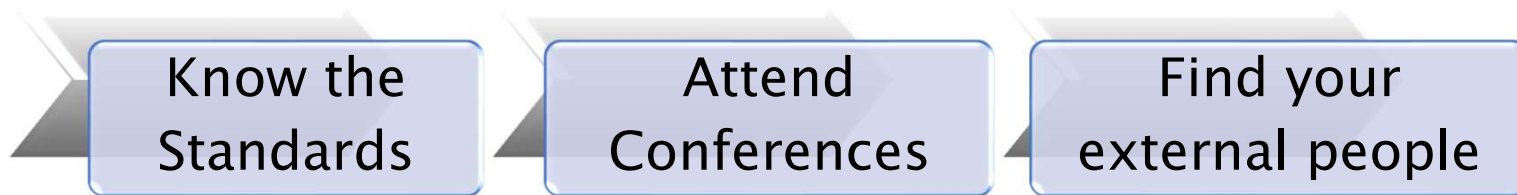
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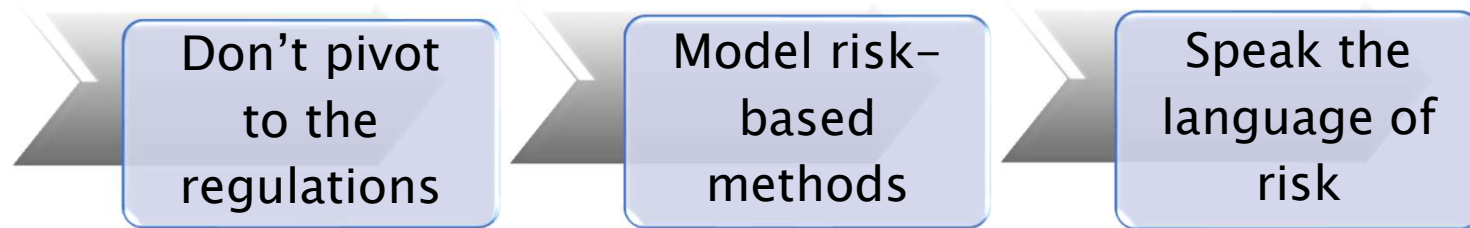
# Drilling it Down – Five Impactful Steps

## 1. Become the expert on OSH risk in your organization



# Drilling it Down – Five Impactful Steps

## 2. Stop saying, “OSHA says....”



OSH Risk Management is  
Business Risk Management

# Drilling it Down – Five Impactful Steps

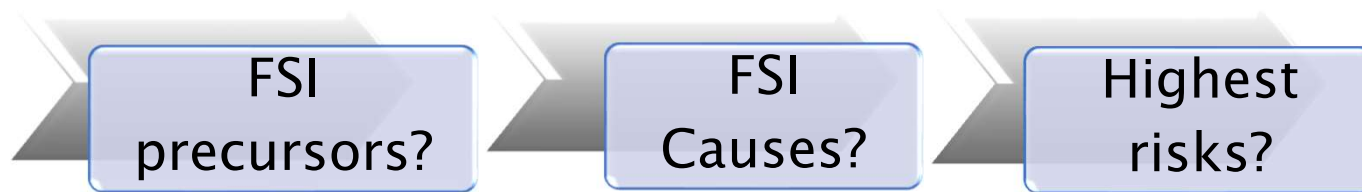
3. Find and promote a “different” indicator.



Pro tip: attendance at safety meeting is not much better than incident rates.

# Drilling it Down – Five Impactful Steps

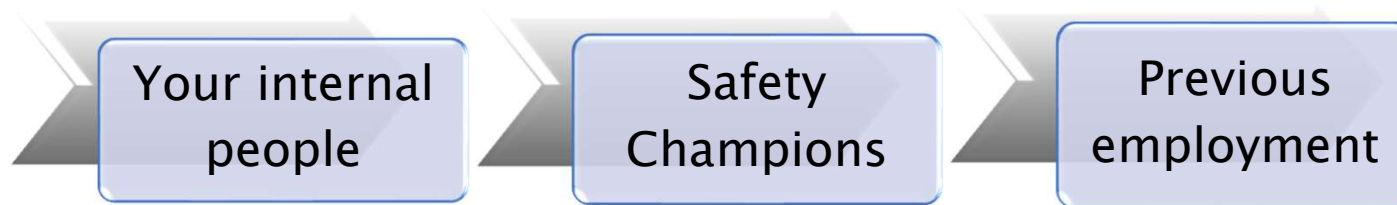
4. Get to know your Top 5 Risks. That means everyone.



Data dive, consult with trade organizations, insurance broker, BLS, NSC.

# Drilling it Down – Five Impactful Steps

5. Identify and empower your risk champions.



# Just Start Somewhere



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# Questions, Comments, Sharing

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