ENERGY SAFETY CANADA

Webinar | PSI and Continuous Improvement

Presenters: Robert Waterhouse
Host: Andrew Davis

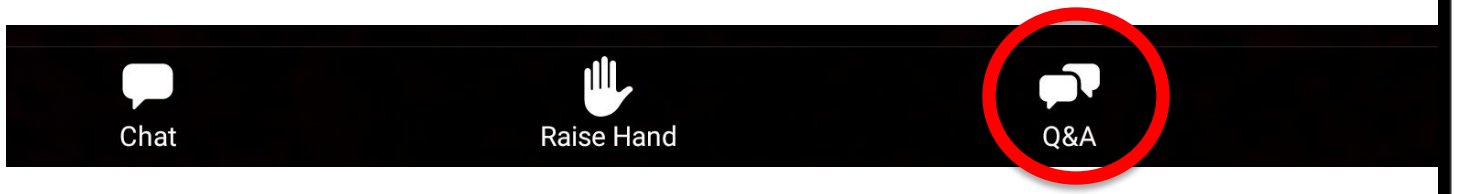
Start Time: 12:00 pm

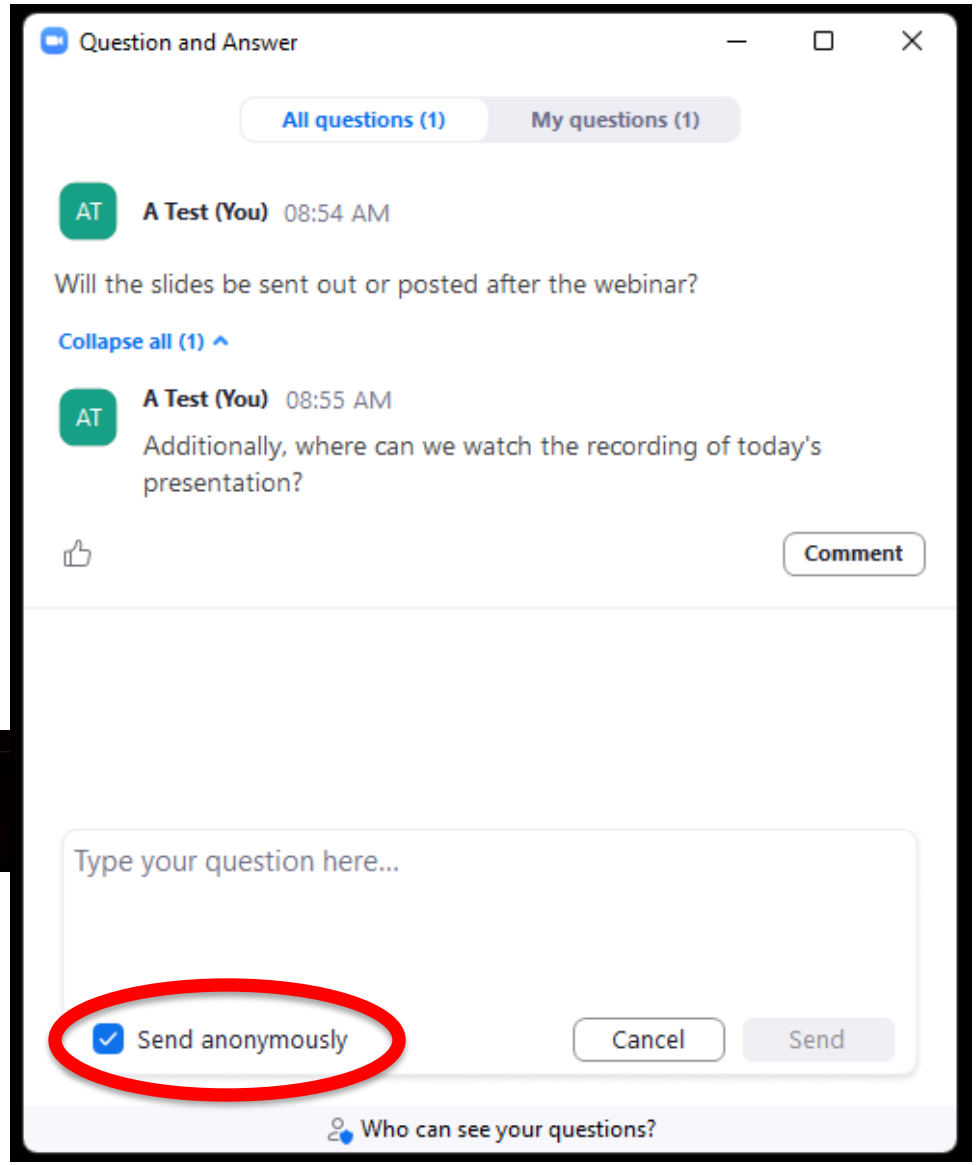
Before we get started

- Can you see the presentation and hear clearly? (If not, reach out to an ESC co-host in Chat)

Before we get started

Interact with us – submit questions to the host and questions can be submitted anonymously





Outline

- What is a PSI?
- Examples
- Learning
- Data Insights
- Next Steps

What is a PSI?

A Potentially Serious Incident (PSI) is any event where a reasonable and informed person would determine that under slightly different circumstances, there would be a high likelihood for a serious injury, illness or fatality.

A potentially serious incident (PSI) is reportable when:

- the incident had a likelihood of causing a serious injury or illness, and
- there is reasonable cause to believe that corrective action may need to be taken to prevent recurrence.

- ESC's PSI Guideline
- ESC's PSI Program (Applicable for Every Jurisdiction)

Decision Tree

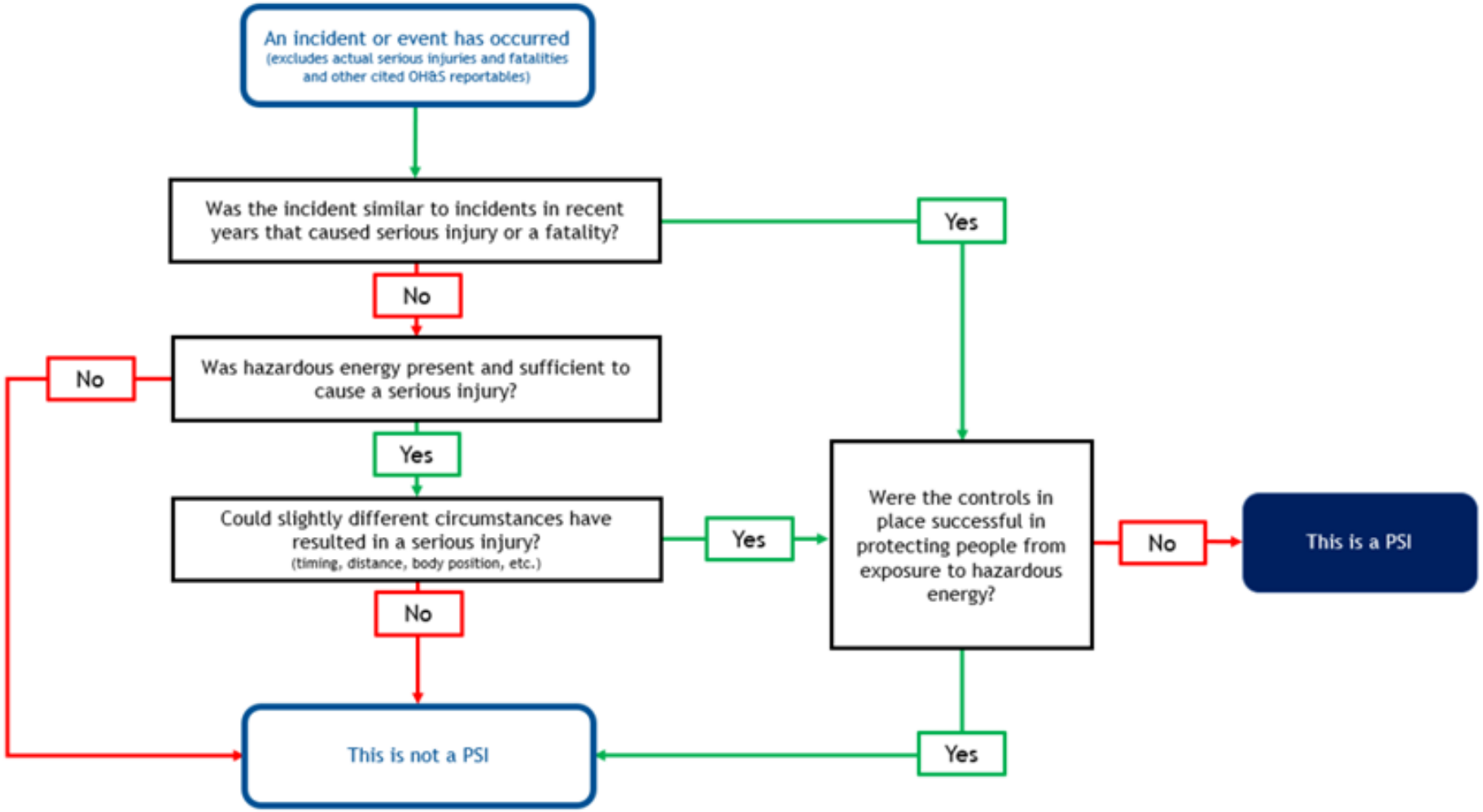
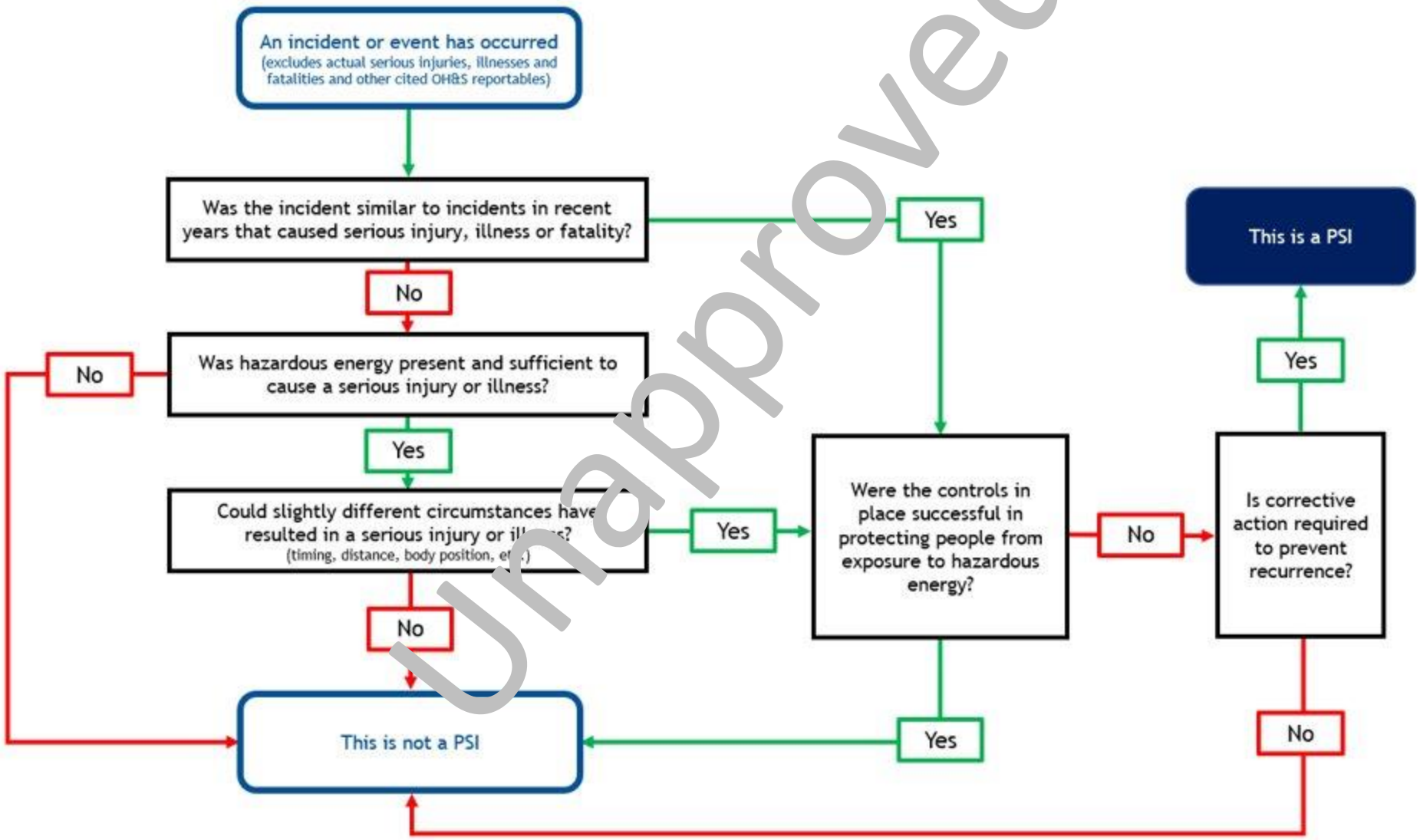


Figure 1. PSI Identification Decision Tree*

*Jurisdictional variation may apply

Decision Tree

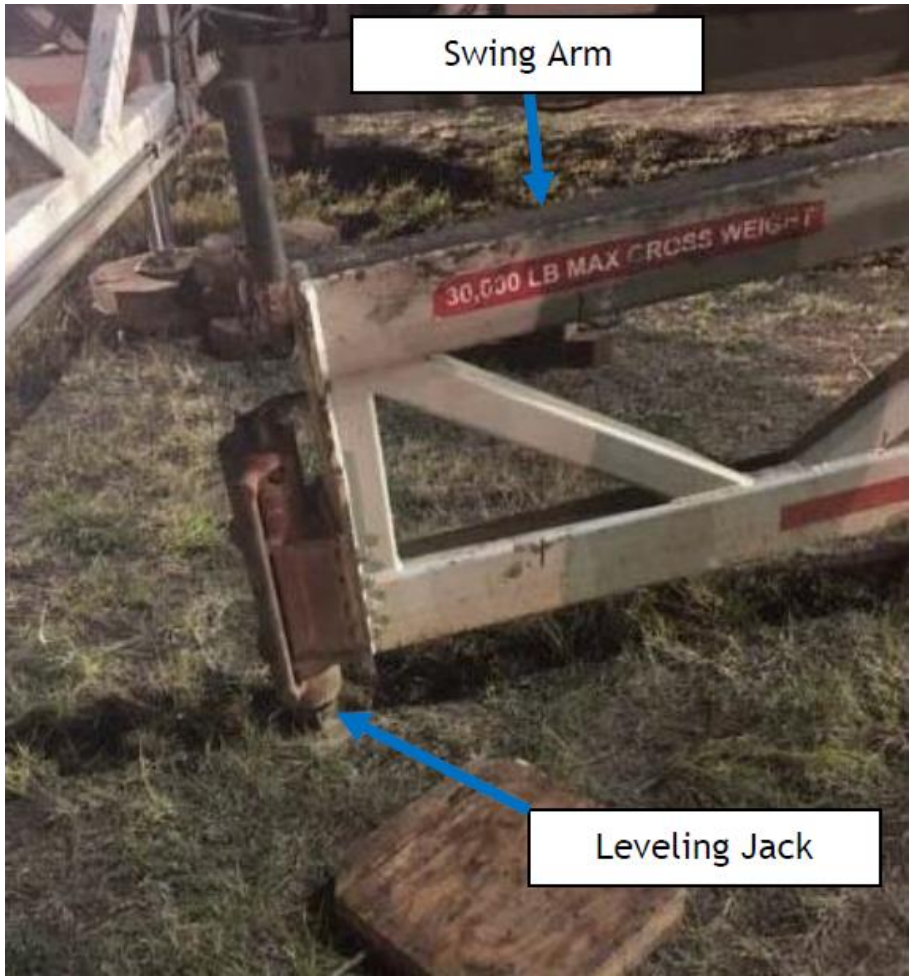


Heavyweight Drill Pipe

ing used to
of drill
raised
above the floor, the pipe dropped to the floor and slid off the doghouse. The pipe smashed through the door of the track hoe and the operator threw himself to the front of the cab to avoid being struck.

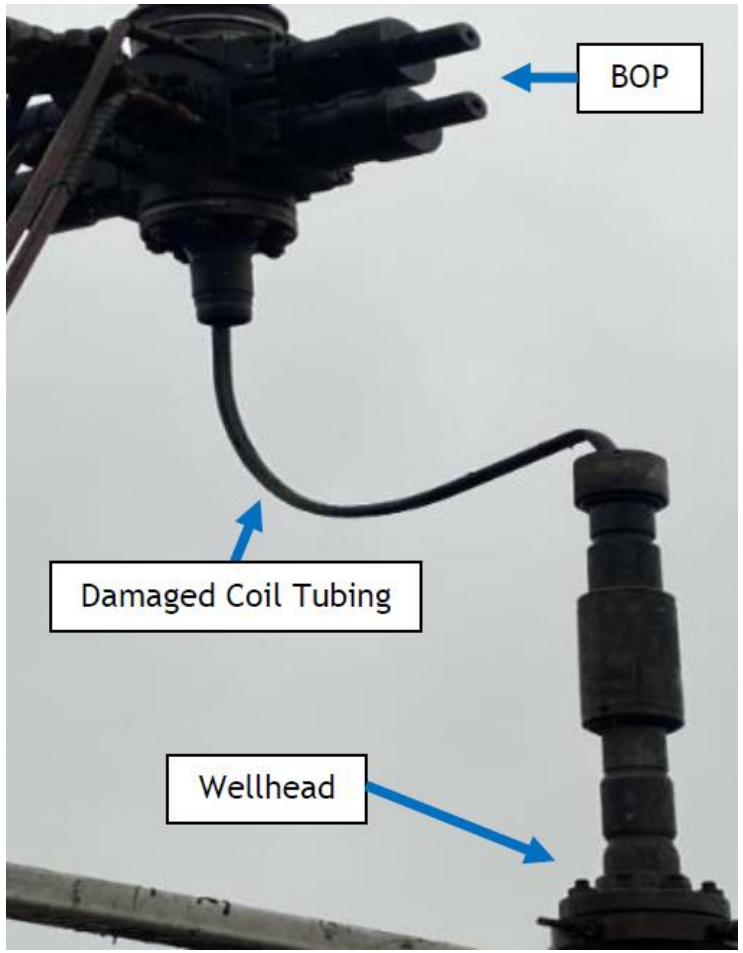
Catwalk Leveling Jack Dropped on Worker's Foot

A crew was in the process of rigging in a third-party hydraulic catwalk. As the wing arm was pulled away, it suddenly dropped approximately two feet and struck the top of the worker's foot above the toe protector area. The worker sustained a fractured foot.



Coil Tubing BOP Stack Separation

A coil tubing crew was running a fibre optic string into a production well. While placing the coil tubing into the well, the blowout preventor (BOP) separated from the wellhead. This resulted in damage to the coil tubing and loss of well control protection.



Value of PSIs

- PSIs provide an opportunity to learn before a serious incident occurs

- Most PSIs will provide a significant learning opportunity and therefore warrant your attention and effort

Significant Incident Learnings

- Significant incident learnings:
  - Incident causation or hazard is not readily known or controlled
  - Applies elsewhere: Company, Sector or Industry
  - Requires you to re-think how work is conducted

d Piping Causes

ne

ssure

open to bleed off the pressure, a loud bang was heard, and the piping parted. Several workers were in the vicinity of the flying debris, but nobody was injured.

Unsecured Load Impacts Vehicle

While transporting a service rig down a public highway, a set of aluminum stairs bounced off the load and landed on the road, impacting a third-party vehicle. The incident resulted in injuries to the occupants of the third-party vehicle.

Valve Falls from Height Striking a Worker

While reciprocating casing during a cement job, a valve weighing greater than 15 kg broke off at the threaded nipple union and fell approximately 5 to 6 m, striking a worker in the leg and causing serious injury.

Incident Investigation

- What system weaknesses were present:
  - Process design and procedures
  - Change
  - Decision rights
  - Competency
  - Equipment design
  - Workplace communication
- Complexity and context

Poll Question

What best describes typical actions from actual serious incidents in your experience?

A) - We think outside the box and re-design the process/equipment

B) - Adjustments are made following an incident where possible

C) - Unless a serious incident happens, major change is unlikely

D) - Programs are implemented to improve worker performance

Poll Question

Have you ever heard of a serious incident happening again in a company or within industry?

A) - Yes

B) - No

What is Learning?

- Learning is not easy
- Learning involves reflection
- Learning involves change/action
- Learning is deliberate (not passive)

Poll Question

What barriers keep you from learning from PSIs?

A) - Limitations with existing equipment and process

B) – Willingness of others in company/industry to change views

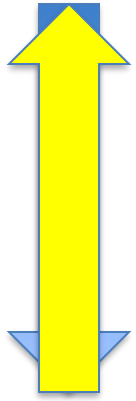
C) – Insufficient worker training

D) – System challenges with how work is planned and executed

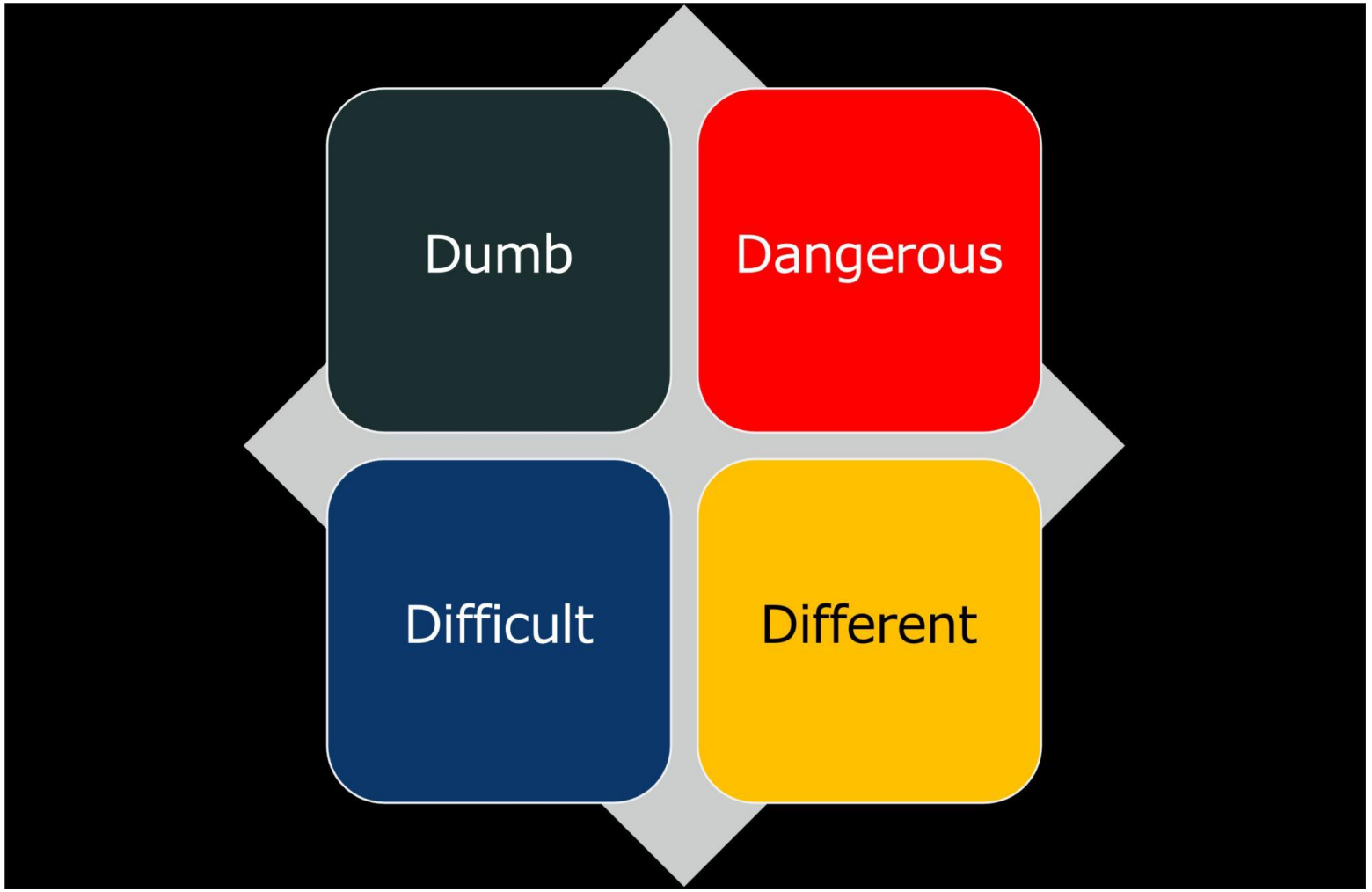
E) – Inadequate leadership

Operational vs. Organizational Learning

- Organizational learning is top down
  - Leadership sharing what they want you to learn e.g., training
- Operational learning is bottom up
  - Learning what it takes to safely execute work from those that execute the work
  - Learning Teams



Using the 4Ds



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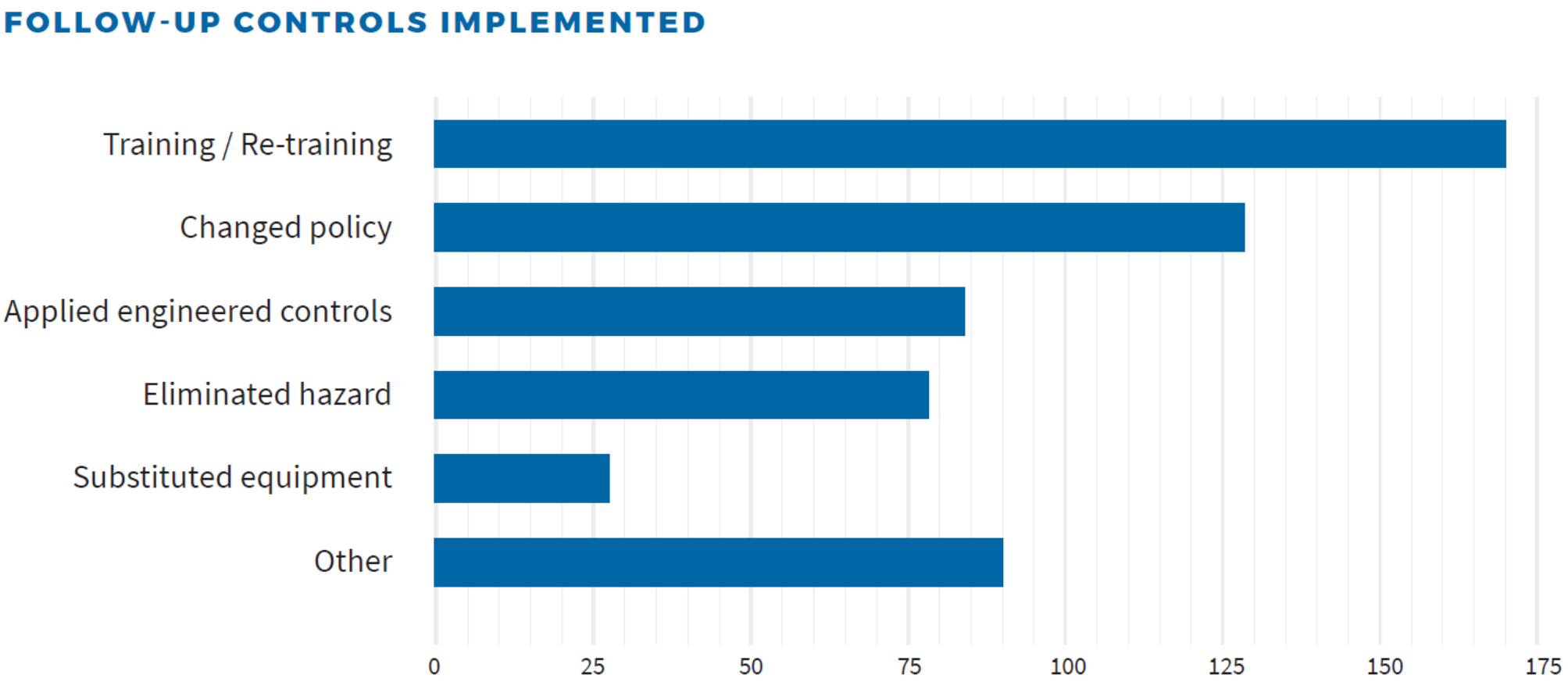
Continuous Improvement

- What does this mean?
  - Always striving to improve
  - Not being satisfied with status quo
    - “Its Good Enough”
  - Very often this is incremental change not transformative change
- Transformative change if often limited to fatalities and actual serious incidents but should include PSIs.

Out of the box thinking

Ask your workers, if resources were not a consideration, how could we keep this PSI from becoming an actual serious incident?

PSI Report


FOLLOW-UP CONTROLS IMPLEMENTED
Training / Re-training
Changed policy
Applied engineered controls
Eliminated hazard
Substituted equipment
Other
0
25
50
75
100
125
150
175

Data Insights

- ESCs has an agreement with AB OH&S where the oil and gas PSI data is shared

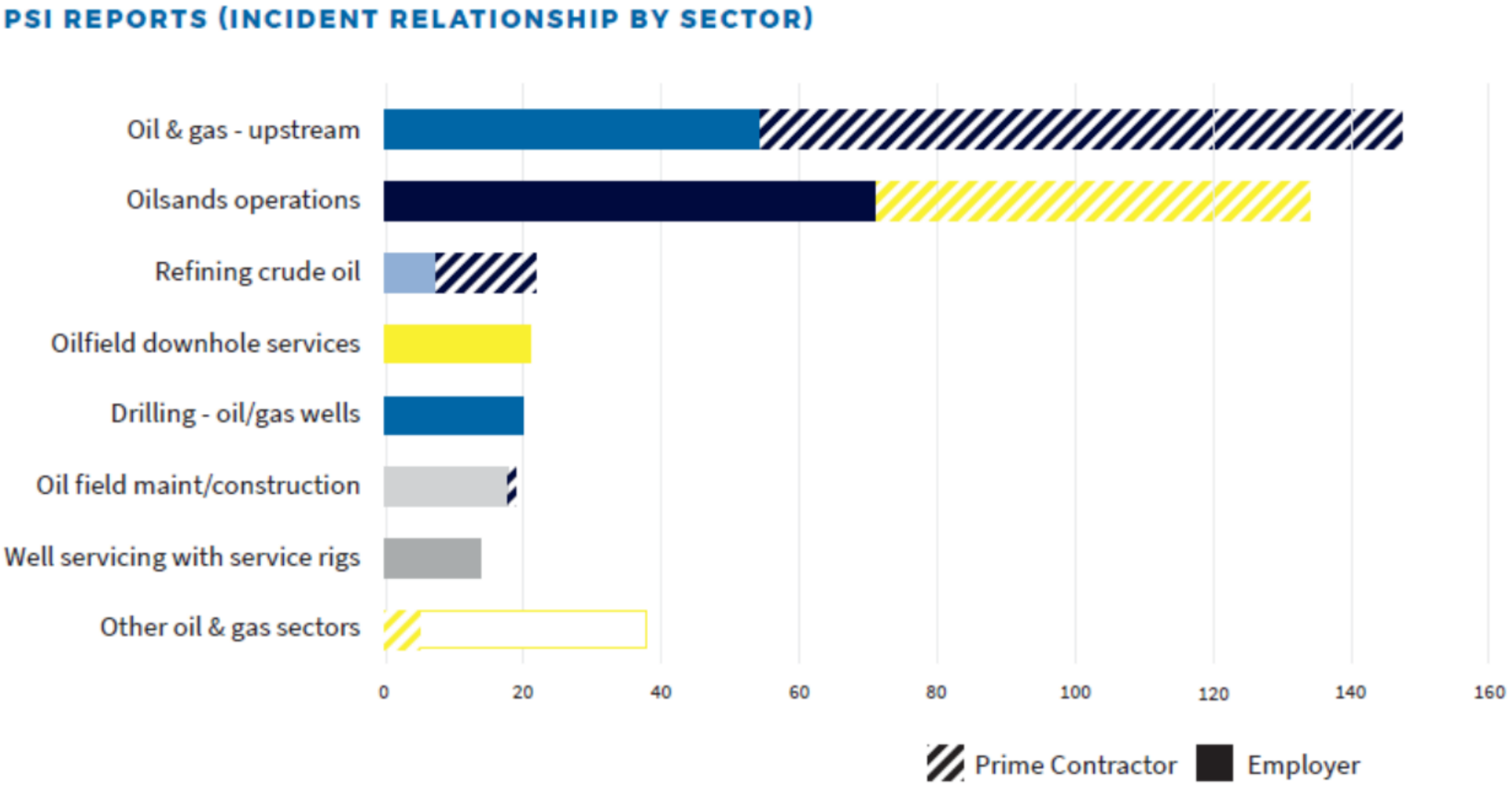
- This summary covers data from the time period of 2019 Q1 to 2021 Q2

Incident Details

- Much of the context around the PSI data is not included in the data

- AB OHS has committed to providing some of the context where able in the future
  - Many organizational factors involved beyond worker error

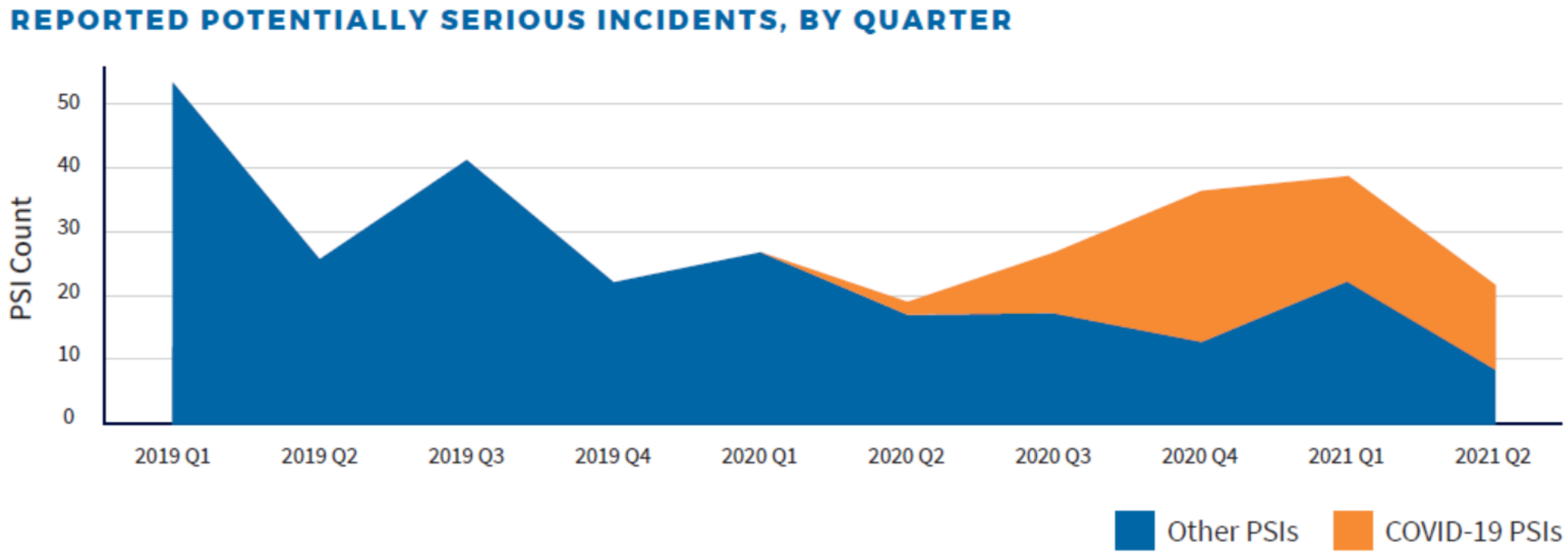
Where in Oil and Gas?



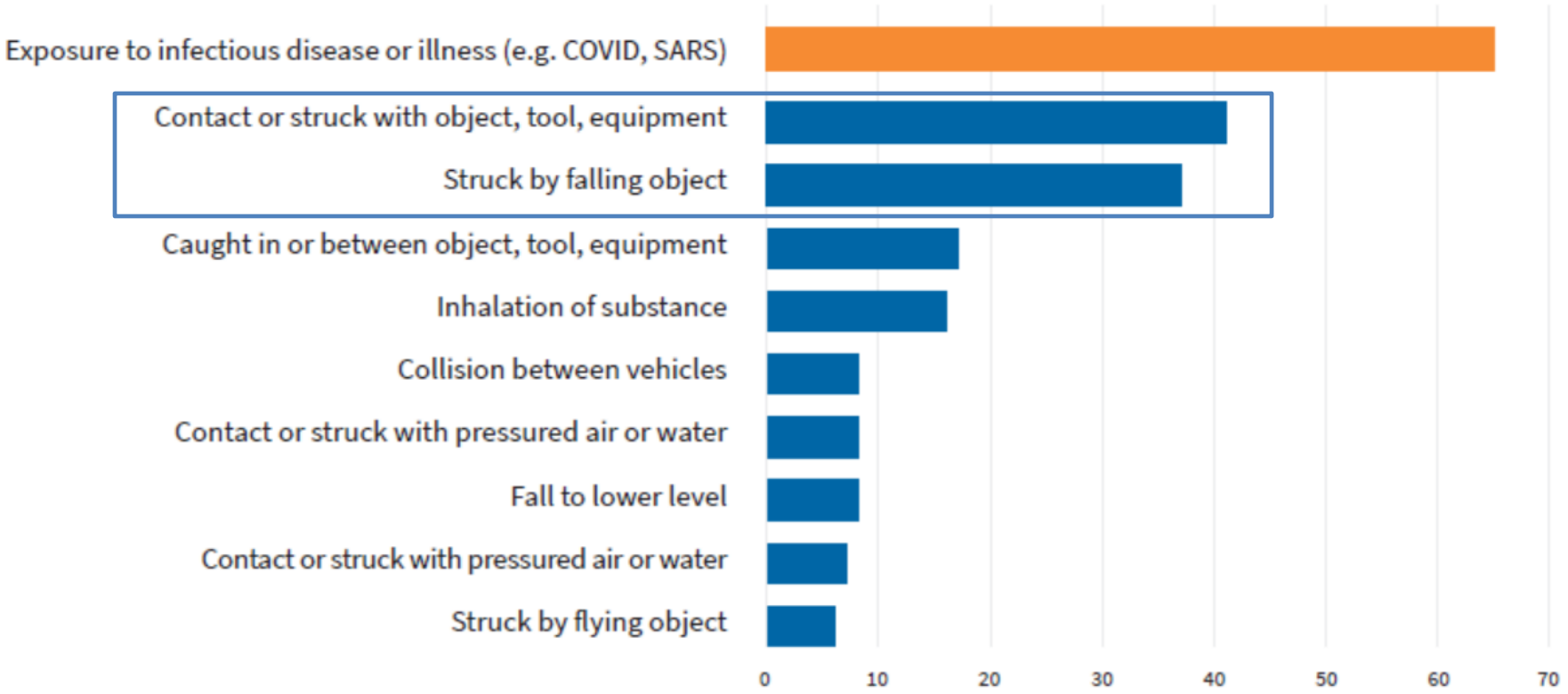
Poll Question

- If you came home to find an open container of Ebola on your kitchen counter, what incident level would you assign to this even if no one got sick?
  - A) - Insignificant
  - B) - Low
  - C) - Moderate
  - D) - Serious

PSI Trending



Incident Classifications



Half are Line of Fire related

Recommendations

- Track PSI submissions internally
- Share PSIs from other provinces using ESC's PSI portal
- Reach out to ESC with SIL

Next Steps

- Full report available now on ESC website
- PSI Guideline Changes
- PSI panel in 2022 to share learnings

ENERGY SAFETY CANADA

Q&A

Upcoming Webinars

- Jan 13 Get to Know the TDG Program!
- Jan 19 Rehabilitation After a Brain Injury

- Register at www.energysafetycanada.com/Events

Feedback Survey

Please let us know how we are doing!

- You will receive a survey shortly
- Let us know what you thought of the presentation
- What did you learn, and how can we improve?
- What topics interest you we could offer webinars on?