



Critical Risk Control Verification

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EEA Health and Safety Workshop

Why Critical Risk Control Verification Matters

- Some risks have the potential to cause life-altering harm or fatalities
- Paper controls ≠ Real protection – how do we know what is written is working?
- Assurance means checking that critical controls are in place and working
- It's about trust, accountability, and saving lives
- Aligns with good governance and regulatory expectations (HSWA, ISO 45001)

Before we can understand risk control verification it would be good to understand what is a Critical Risk





What is a Critical Risk

Defining a Critical Risk

- A hazard or activity that has the potential to cause a fatality or life-altering injury
- Not all risks are equal – focus is on the most serious
- Requires strict controls to prevent catastrophic outcomes
- Often involves high-energy systems, complex environments, or human error potential

An event that takes place where there is the potential to cause serious harm or illness or potential to cause a fatality.

Or

An event that has the potential to cause severe damage to property & assets.

Critical Risks at Pioneer Energy

Driving Risks

Driving poses a significant risk in Pioneer Energy's operations. It is critical to follow safety protocols to prevent accidents and ensure the safety of all employees.

Stored Energy Hazards

Stored energy, such as pressurized systems or chemical reactions, can pose serious risks. Work controls and Permit system key to mitigating risk.

Electricity Risks

Electrical hazards are prevalent in Pioneer Energy's operations. Ensuring proper insulation, grounding, and maintenance can mitigate these risks.

Working from Heights

Working from heights, including risks from drop objects, requires strict adherence to safety protocols to prevent falls and injuries.

Confined Space

Confined spaces pose risks due to limited access and ventilation. Proper training and equipment are essential to ensure safety.

Working Around Water

Working around water requires precautions to prevent drowning and water-borne hazards. Safety gear and protocols are vital.

Mental Health

Mental health is a critical concern. Providing support and resources to employees can improve their well-being and productivity.

Mobile Plant and Equipment

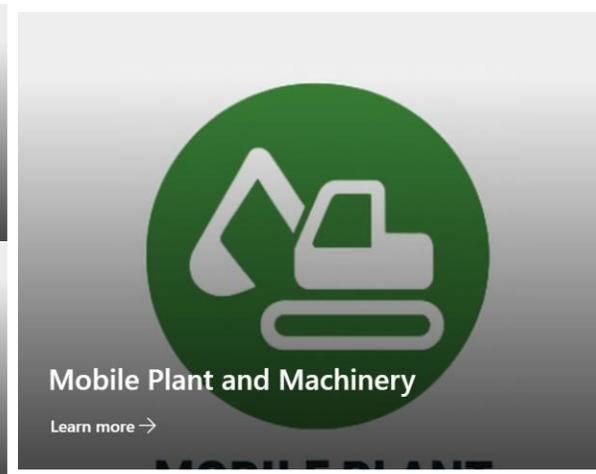
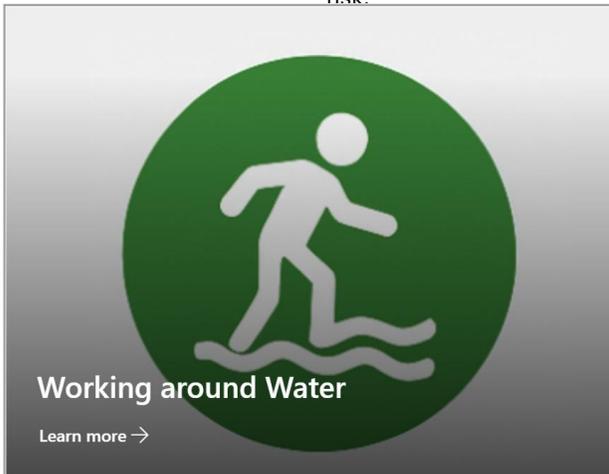
Operating mobile plants and equipment requires vigilance and adherence to safety protocols to prevent accidents and injuries.

Working Alone

Risks posed by employees working alone in remote locations requires monitoring and check in process

Hazardous Substances

Exposure to hazardous substances or materials resulting in death, injury or illness as a result of improper management of the substance or material.

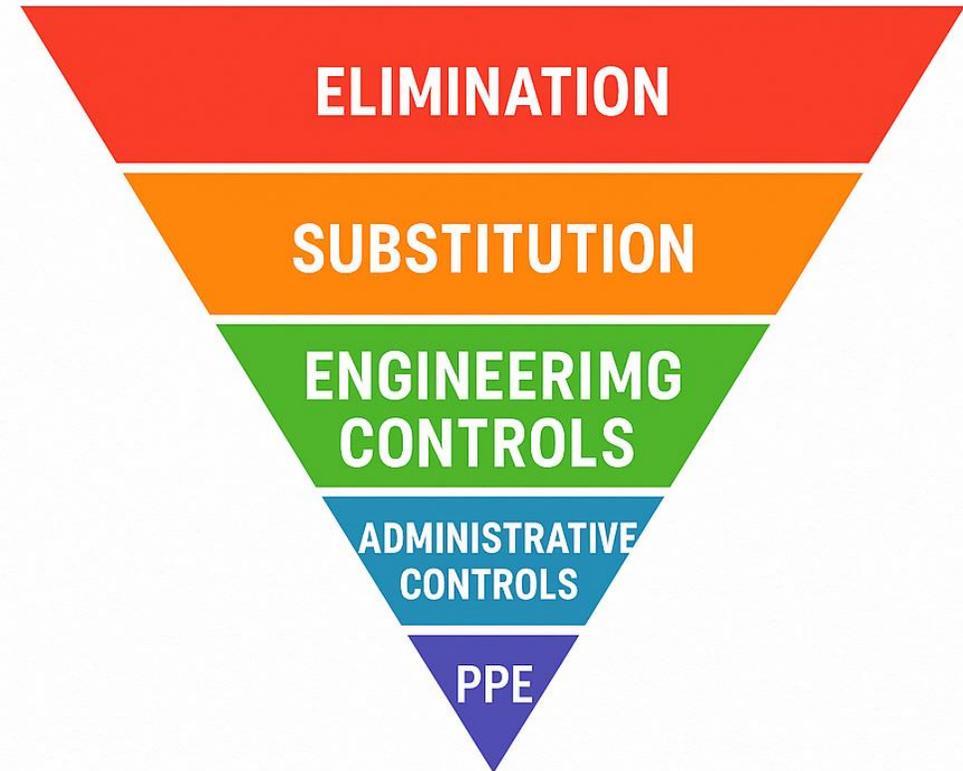


What is a Critical Control

Understanding Critical Controls

- Specific actions or systems that if absent or ineffective will significantly increase the likelihood of a serious incident
- Designed to **prevent** or **mitigate** fatal or life-altering outcomes
- Must be verifiable, understood, and practical in the field
- Often involve engineering controls, isolation, or fail-safes

HIERARCHY OF CONTROLS



The Verification Process

Why Businesses Are Moving to This Process:

- Boards and executives want assurance that critical risks are truly controlled
- Regulatory scrutiny is increasing, especially after serious harm incidents
- Demonstrates due diligence and governance accountability under HSWA
- Drives cultural maturity: from box-ticking to real-world validation
- Supports proactive risk management, not reactive incident response

Pioneer's Control Validation Journey



Annual Review Process

Management and SMEs meet annually to review and validate the effectiveness of each critical risk control.

Assessment and Identification

Assessing the performance of controls, identifying ineffective ones, and suggesting necessary changes are crucial steps.

Evaluation of Implementation

Evaluating the confidence in control implementation, adherence, and fitness for purpose ensures they meet safety standards.

Shift from Complacency

Moving away from complacency in safety practices due to absence of serious injuries or near misses is vital.



Old Risk Verification Process

Excel Sheet with Traffic Lights

The old risk verification process used a large Excel sheet with traffic lights to indicate confidence levels, actions, and improvement ideas.

Lack of Assurance

The process did not provide substantial assurance that critical controls were effectively in place and working as intended.

Reliance on Ineffective Leader Walks

Real inconsistency between how different leaders completed a site visit – hard to extract meaningful information.

Insufficient Gaps Identification

This process, based on one meeting and perhaps trend analysis, was insufficient to identify gaps and areas of concern.

There needs to be a consistent effort to engage with employees, conduct site observations when the hard work is taking place and need to account for differences in people, locations, training, equipment and other factors that impact risk.

Internal Audits Required

Target Active Work with high risk activities

- Work observations during high risk work – be involved

Compliance Audits

- Verify documentation, training, planning activities.

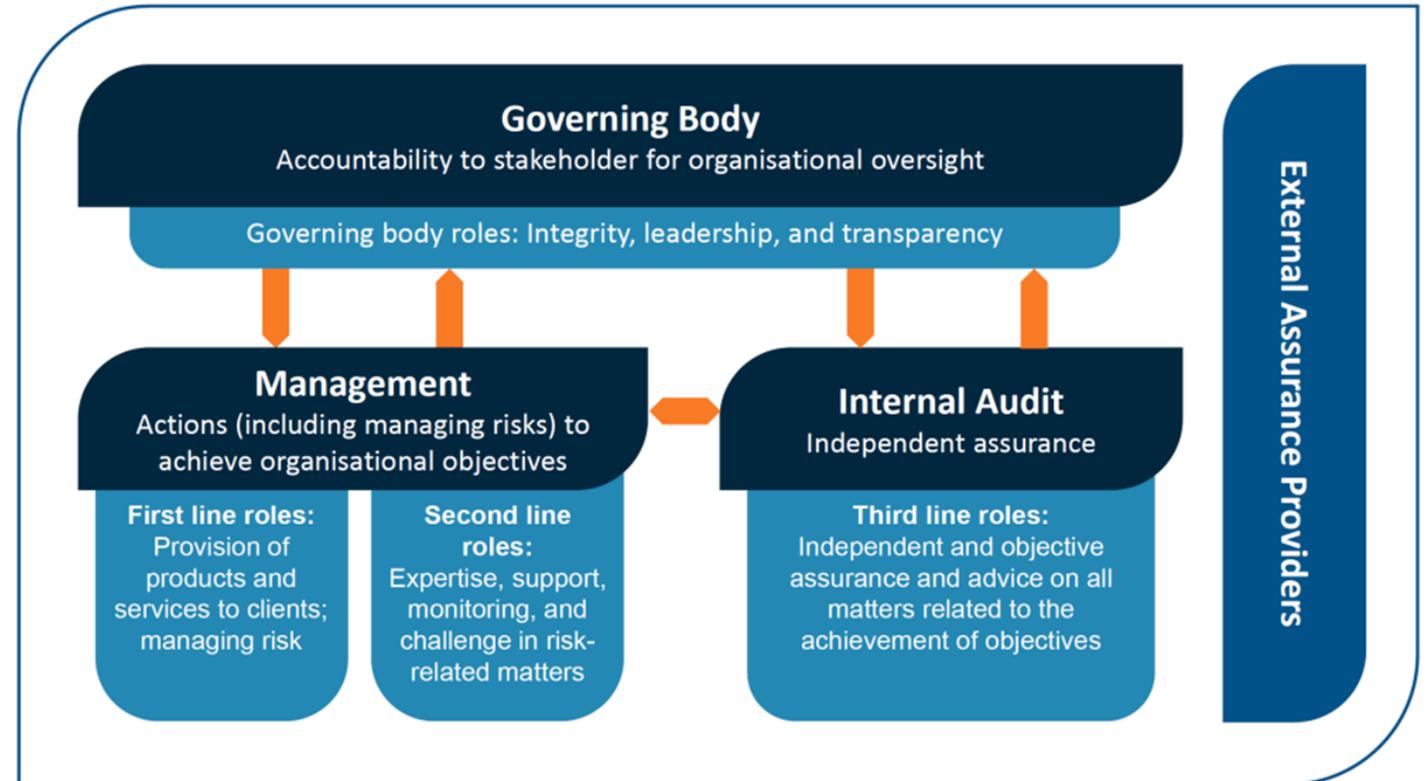
Worker Engagement –

- H&S Reps review a Critical risk every month on top of regular Worker engagement audits.
- Leadership Audits

External Auditor

- ISO 45001, AU/NZ 9001
- Consultants

The IIA's Three Lines Model



What We are Moving To

- **Field observations** and task walkthroughs
- **Interviews** with workers and supervisors
- **Permit-to-work audits** and isolation verification
- **Site Inspections**
- **Leadership Audits** and assurance tours – how effective?
- **Control scoring tools** and dashboards – how do you measure safety?

Is there consistency in how these things are approached?

The 5 P's Lens

- **People** – Are workers trained, competent, and supervised?
- **Plant** – Is equipment safe, fit for purpose, and maintained?
- **Place** – Are environmental conditions or access creating risk?
- **Process** – Are task steps well-defined and followed?
- **Policy/Procedure** – Are documents, permits, and emergency plans in place and used?



Scoring with the 5 P's

Field Verification

Use evidence gathered during field verification to score critical controls across the 5 'P' categories.

Presence and Effectiveness

Focus on the presence, effectiveness, and reliability of controls when scoring each category.

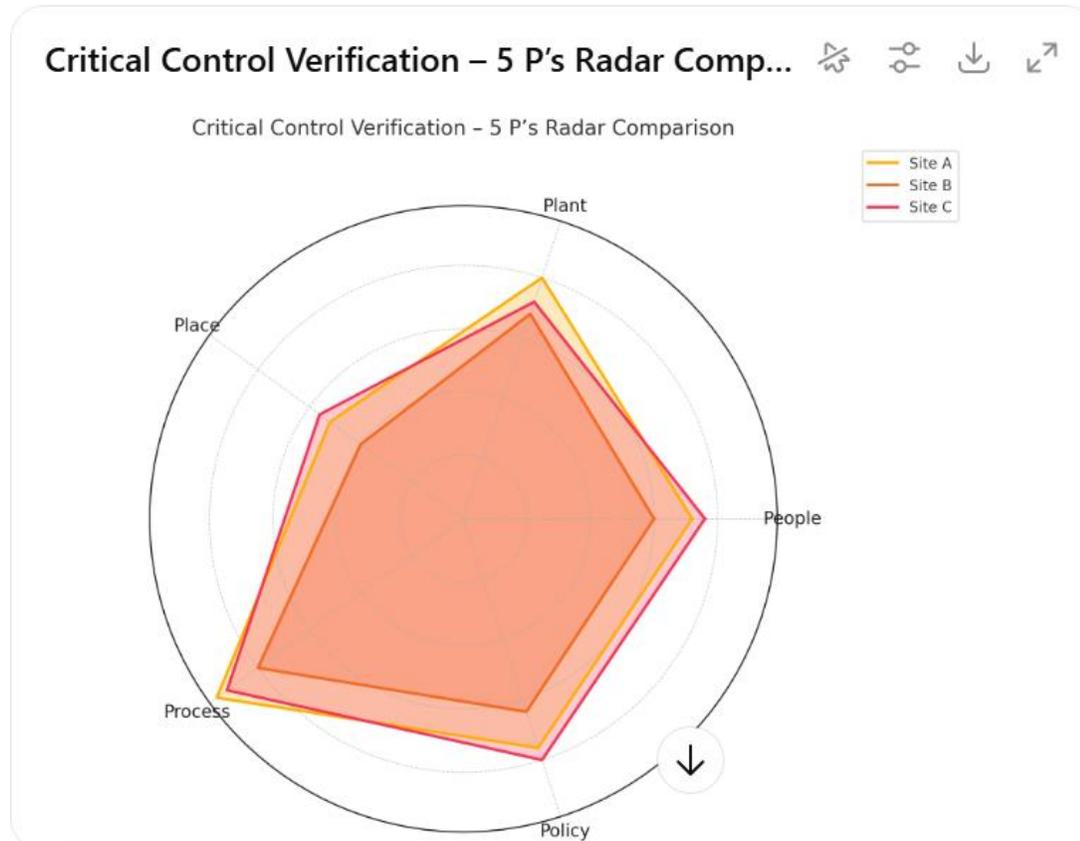
Weighted Scoring

Weighted scores contribute to an overall control assurance rating. Example breakdown: People – 20 points, Plant – 20 points.

Performance Over Paperwork

Scoring is based on performance rather than paperwork, turning gathered evidence into actionable insights.

Turning Verification Scores into Actionable Intelligence



Site-Level Dashboards

Visualize strengths and gaps at site level using dashboards to better understand performance.

Radar Charts

Compare control effectiveness across various risks using radar charts for better visualization.

Trend Analysis

Identify improvements or declines over time by analyzing trends in verification scores.

Scores for Escalation

Trigger escalation and focused follow-up actions based on verification scores.

What Good Verification Looks Like

Visible Controls

Effective verification includes visibly implemented controls that are understood and followed by the entire team.

Leadership Engagement

Field leaders and site leadership actively participate in verification processes, beyond the scope of safety staff.

Evidence Collection

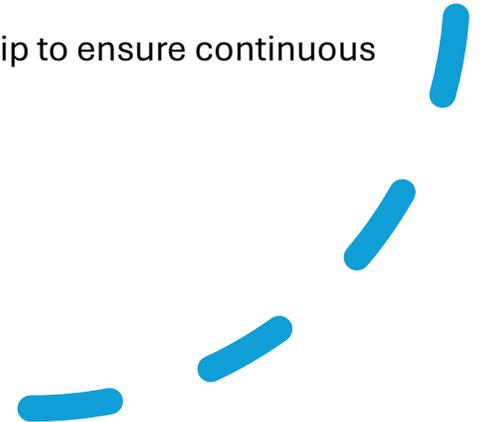
Verification involves collecting and recording evidence such as photos, permits, and conducting interviews.

Follow-up and Coaching

Gaps identified during verification are followed up with coaching and constructive feedback, rather than just reporting.

Score Review

Verification scores are reviewed and acted upon by site leadership to ensure continuous improvement.



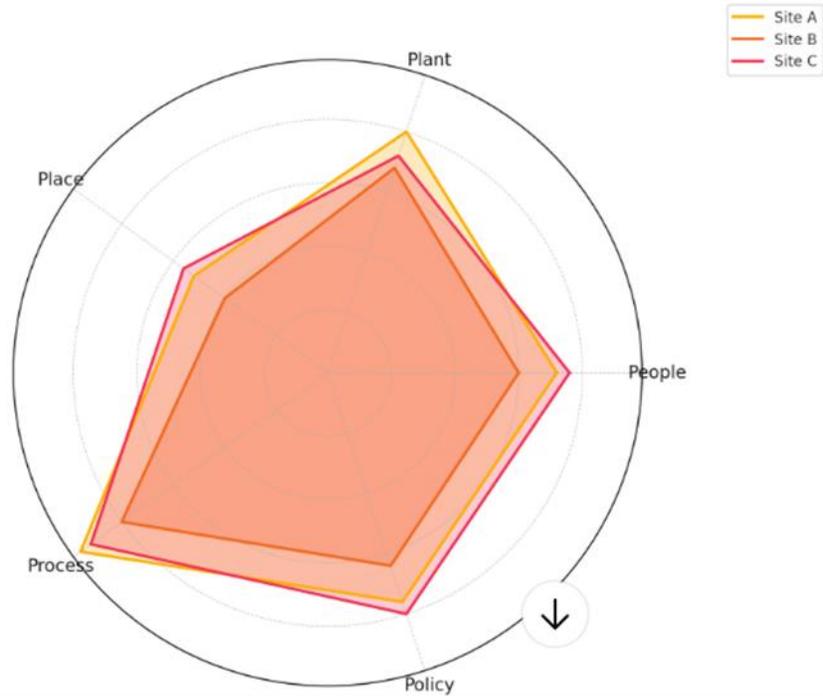


Detailed Verification Process

We are committed to implementing a comprehensive verification process to meet the standards set by our directors.

Critical Control Verification – 5 P's Radar Comp...

Critical Control Verification - 5 P's Radar Comparison



will help leaders ensure that managed and mitigated.

we well managed to protect our top priority.

changes before we get to a state that

Our Journey Ahead

QUESTIONS?

