

Incitec Pivot Limited

INNOVATION ON THE GROUND

SAFEX Congress 2023

Preventing Serious Incidents

**How an increasing focus on Significant Events is
strengthening learning culture and embedding a process
of learning, sharing, and fixing for good.**

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Contents

1 Background..... 3

2 Introduction..... 4

3 Significant Event Definition..... 5

4 Change Management..... 6

5 Results to Date..... 7

6 Conclusion..... 8

7 References..... 9

SAFEX Congress XX 2023: Preventing Serious Incidents

1. Background

Incitec Pivot Limited (IPL) is a company that has a foundation built on strong care-based values for Health, Safety, Environment and Community.

Over time, IPL have achieved a significant reduction in injury rates and developed a common language around Zero Harm including My Why, SafeGround, Drift and Playing Your Position through its SafeTeams program. IPL's Zero Harm Ambition, committed to in 2019, stopped the drift upwards of the recordable injury rate, and the re-refresh of SafeTeams has resulted in the return to historic norms: however still above its goal. Also in 2019, the loss of containment and environmental incidents exceeded internal targets and the company acknowledged that whilst Personal Safety had a high level of focus, Health, Environment and Process Safety disciplines required a heightened attention to prevent harm to people and the environment.

As a result, significant effort was made to consult widely across all levels of the organisation and as One IPL, the management team proposed a refresh of their approach to create a strong connection to IPL's Zero Harm Strategic Driver and develop a Zero Harm Strategy which truly integrated the Health, Safety, Environment and Community (HSEC) elements under one framework.

In 2020 a revised 3-year tactical plan was implemented, targeting the delivery of Global Zero Harm initiatives and the establishment of Global Collaboration Networks to focus on specific Health, Safety, Process Safety and Environment continuous improvement plans.

The new strategic themes (Figure 1) of Simplify, Get the Fundamentals Right, Lead and Engage and Strengthen our Learning Culture provided a common language and basic principles which guide effort, reflect the voice of the internal customer, and ultimately improve performance.



Figure 1: IPL Zero Harm Strategy Strategic Themes driving Zero Harm Improvement Initiatives

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2. Introduction

An historic industry hypothesis was that the lower the recordable injury frequency rate, the safer the organisation, or in other words, that safety is defined by the absence of incidents. Industries that continue to measure their safety performance with only lagging metrics (i.e., injury frequency rates) are sometimes surprised by large fatal accidents that seem to have no connection with their understanding of the risks they faced; or with how they were measuring safety (Dekker & Pitzer 2015).

Over the last 10 years, IPLs recordable injury performance trend has improved along with the reduction in harm levels from those incidents. However, three fatal incidents over the same period occurred whilst injury trends continued to reduce (Figure 2). This highlights that a continued focus on incidents (only) may divert management’s attention from learning from high potential events (including hazards and near misses) whilst significant effort is put into investigating (relatively) minor recordable cases.

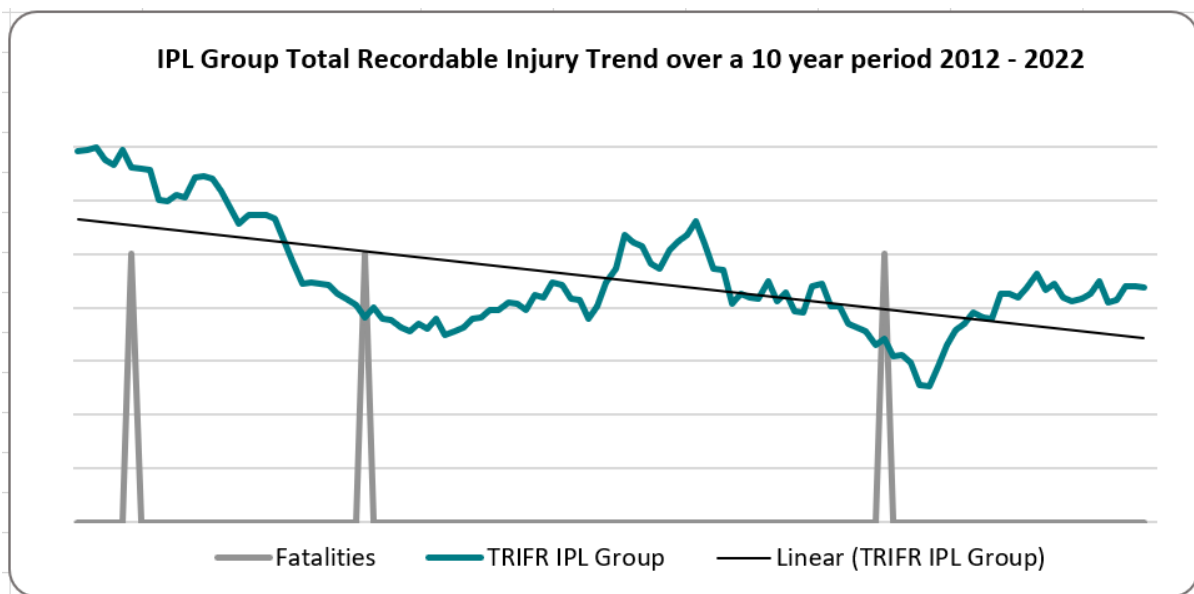


Figure 2. IPL Group data of TRIFR and fatal incidents

Whilst IPL’s Incident Management Processes were well embedded, a deep dive into the processes indicated that there was confusion and inconsistency across the group on what incidents required formal investigation and management review. There was also an opportunity to improve the operational discipline in achieving acceptable investigation timeframes and action closeouts.

The term “incident management” was refined to “event management” and key minimum requirements were defined:

- Any event that had, or could have had, resulted in harm to people, the environment or company assets are reported in the corporate HSEC management system.
- All events are assessed for actual and potential consequence.

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- A formal investigation is required for Significant Events identifying root cause, site specific actions and organisational learning (within 30 days)
- Outcome of the investigation is communicated
- Actions completed (by due date – no extensions)
- Periodic analysis of event data to address trends and themes

3. Significant Event Definition

Learning from the successful approaches from broader industries, IPL adopted Exxon Mobil Corporation’s “Mining the Diamond” approach to reducing serious injuries and fatalities by focusing the organisation’s attention to those incidents that had the most potential to cause significant harm. Potential Serious Injuries and Fatalities (SIF) are often those events that are buried deep in the traditional safety triangle where the actual outcome falls short of the potential that could have occurred (Rife 2017).

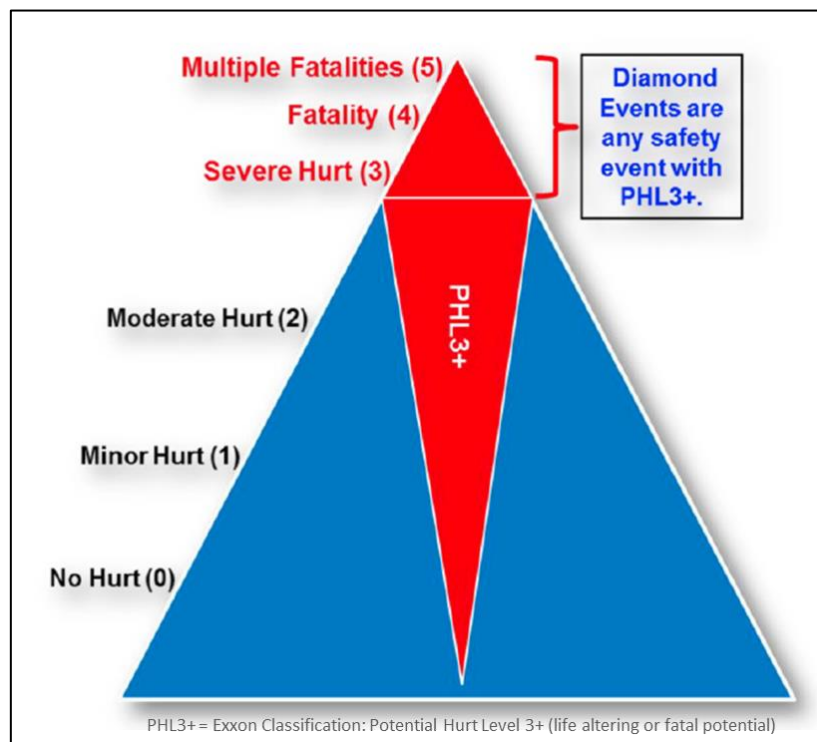


Figure 3. Exxon Mobil Corporation “Mining the Diamond” (Rife 2017)

IPL defined a significant event as an event with actual and potential consequences covering health, safety, process safety and environmental outcomes as indicated in Table 1. This sets the minimum requirement for event investigation within the organisation.

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| HSE Category | Actual & Potential Consequence |
|-----------------|---|
| Health & Safety | Severe injury, fatality, or multiple fatality |
| Process Safety | Tier 2, Tier 1, or Fire/Explosion |
| Environment | Long term impacts, major event or repeat non-compliance |

Table 1. IPL Definition of Significant Event

4. Change Management

The focus on Significant Event Management was lead from the top of the organisation through the Board, Executive Team and Global HSE Collaboration Networks. The thinking was embedded into IPL Management Systems and tools to ensure ease of reporting, monitoring and conformance to the revised corporate requirements. Key success factors in embedding the change involved broad engagement, leading metrics built into the corporate scorecard, system modifications to support the change, and new processes embedded into line and functional governance forums.

- Engagement – ensuring the “WHY” was understood and the broader community collaborated on the “WHAT” and the “HOW”
- Performance Scorecard – Executive Team scorecard was changed to focus on leading metrics associated with reporting, investigation completion and event closeout ensuring expectations were clear and the right behaviours were rewarded throughout the organisation
- Management System - procedures and tools were updated to ensure “easy” conformance to the new requirements
- Governance Forums - now include the review of Significant Events at all levels of the organisation from Board & Executive Team through to business unit zero harm councils. This ensures a high level of visibility of all Significant Events occurring across the organisation and leadership time is spent assuring quality of investigations and actions and analysing trends of weak signals which drive key improvement activities on the Zero Harm Improvement Plan.
- Learning Forums - events are shared at team meetings, leadership forums and zero harm councils and through Lessons Learned Bulletins published on the company’s intranet.

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5. Results to Date (aligned to IPL Zero Harm Strategic Themes)

Since the implementation of the revised event management process, several positive results have been achieved which demonstrate that an increasing focus on Significant Events is strengthening learning culture and embedding a process of learning, sharing, and fixing for good.

i. Simplify: “We support people with easy to use and easy to understand systems”

A focus on simplification has ensured that the conformance requirements are clear, including the WHY, WHAT and HOW.

- Reworded language to significantly reduce the number of shall statements.
- New notification table / matrix – removed complex wording and updated requirements to reflect current and proposed practices.
- Simplified and clear global standardised notification form for Significant Events.
- Developed an Event Management ROAD MAP – one page summary of key roles/responsibilities. Removed duplication of roles and responsibilities section in procedure. This will also be available as a separate document (Guide) not just embedded into procedure for coaching purposes.
- Clarified classification flowcharts, definitions (including repeat events) and timeframes.
- HSE Management System Tool modified to reduce the requirement for manual forms to be completed making it easy to conform to the new requirement.

ii. Get the Fundamentals Right: “We define the minimum expectations. We are excellent at the fundamentals”

Clear minimum standards ensured that operational discipline can be monitored, and expectations reinforced.

- Minimum expectations set for event investigation and action close out
- High level of Significant Event reporting with an average of 120 events (including hazards and near misses) identified, investigated, and reviewed annually indicating a strong reporting culture
- Hazard & Near Miss to Incident reporting ratio improved by over 85% from FY20 to FY22 indicating a heightened level of Significant Event Hazard awareness and reporting
- More than 85% of all significant event investigations are closed within 30 days
- Over 95% of all significant event actions are closed within the original due date.

iii. Lead and Engage: “We empower and develop and expect everyone to be leaders in Zero Harm

Leaders are involved at all levels of the organisation in monitoring the key performance metrics associated with event management including investigation review, management review, business unit learning forums, Executive Team Zero Harm Committees and HSEC Committee of the IPL Board.

- Leaders and workforce actively engaged in event reviews and learning forums

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- Weekly performance reports now prioritise high consequence events which has changed the conversations putting more emphasis on events that have the potential to cause significant harm
- Excellent reporting culture further strengthened by leaders demonstrating the importance of learning from events
- The trend of recordable injuries is monitored monthly, and insights determined to address trends in the long term instead of performing a full management review on every (minor) injury investigation
- Significantly more management time and effort is dedicated to significant event management.

iv. Strengthen our Learning Culture: “We learn, we share, we fix for good”

Regional and global learning forums create an environment of “SafeGround” where Zero Harm leaders openly share learnings from events and determine actions at local and organisational level which embed learnings into site and organisational standards and processes.

- Online Basic Investigation Training module developed to improve competency
- Top categories of Significant Events are analysed and are driving longer term and strategic improvement activities including vehicles and mobile equipment, rule breaches and loss of containment incidents
- Repeat Significant Events are tracked to highlight system effectiveness
- The number of lessons learned bulletins issued increase from approximately 10% of events to approximately 70% of events.

6. Conclusion

STRENGTHEN OUR LEARNING CULTURE

We learn, we share, and we fix for good.

- » Our learning culture is deeply embedded.
- » We share both our learnings as well as our success stories.
- » We have a well-established and systemised process for sharing high consequence events.
- » Our employees and contractors are highly involved in continuous improvement.
- » We learn from repeat events to prevent Significant Events.

The strategic theme of “strengthen our learning culture” is a key pillar in IPL’s improvement journey toward the Zero Harm ambition. Providing organisational clarity on what events required investigation rigour and a high level of management attention, has increased IPLs focus and visibility of the highest consequence hazards, near misses and incidents occurring across the group. Ensuring appropriate controls to prevent significant harm are shared and embedded into organisational management systems, proactively demonstrates a process of continuous improvement, and a learning culture built on psychological safety.

Success is measured by the number of significant hazards and near misses reported and the operational discipline to investigate, share lessons learnt and close improvement actions within the timeframes committed. Future focus areas will include the validation and effectiveness of control implementation for both internal and external significant events.

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7. References

Sidney Dekker and Corrie Pitzer, December 2015, Examining the asymptote in safety progress: A literature Review, International journal of occupational safety and ergonomics https://www.researchgate.net/publication/286970842_Examining_the_asymptote_in_safety_progress_A_literature_Review

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