Meta Incident Analysis

Comprehensive learning from serious incidents.

The Challenge

Do you understand the organisational and critical control factors to prioritise to prevent serious injury and fatalities?

Many operations struggle to realise full benefit from their effort to investigate incidents and the corrective actions that follow. This means that weak controls aren't identified or are left unaddressed and serious incidents tend to repeat over time. Regardless of their cultural maturity, most organisations struggle to achieve consistent, quality analysis of incident causal factors. So, it is little wonder that a recurrence of serious incidents can feel like 'Groundhog Day'.

Common pitfalls of typical incident management systems include:

- categorisation of incidents based on *actual* rather than *potential* severity outcome
- biases in data gathering, interpretation, analysis and decision-making
- a lack of understanding of how to improve human reliability within critical risk activities
- lag-based performance metrics that don't provide insight into where to focus resources
- reward and recognition systems that detract from unbiased, independent incident management
- bias towards instant problem solving and production continuity
- a lack of capability, quality and consistency in incident investigations.

45% **of serious incidents fly under the radar***

29% **of incidents attract unnecessary effort***

*Analysis of 2000+ incidents and near misses with corporate severity rating across multiple industry sectors 2019-2021.

The Solution

There is an opportunity to learn from events with potential for serious consequence. The *Meta Incident Analysis* process (which incorporates the *Incident Severity Analysis*) examines multiple incidents with similar exposure types that have occurred over a six to 24-month time frame. Armed with a rigorous framework, the analysis isolates the precursors to serious incidents. It also identifies the system and culture factors that perpetuate undesirable exposure and result in repeat incidents. The result is a comprehensive and pragmatic set of recommendations to support improvement.

There are five key steps of analysis:

1. Incident Selection
Incident selection based on potential severity

2. People & Cognition
Human factor & cognitive hazard analysis

3. Critical Control
Critical controls breakdown analysis

4. Culture & System
Local & organisational causal factor analysis

5. Learning & Response
Investigation & action quality analysis

You will receive a comprehensive dashboard and report to enable better decision making around:

- identification and prioritisation of critical risk work
- improvement of severity classification system (to prioritise limited resources on high-severity potential incidents)
- gaps in critical control management for high-risk exposure activities
- human factors that could be influencing high-severity potential events (e.g. autopilot, urgency, cognitive fatigue)
- local factors such as supervision that could be more effective
- organisational factors that if addressed could reduce exposure to critical risk (e.g. maintenance, pre-work planning)
- improvement of corrective actions such as effectiveness of critical controls, leadership, pre-planning, human error, supervision of high-risk work
- improvement of the effectiveness and outputs of investigations into serious injury and fatality (SIF) potential events.

Our Approach

Sentis' critical risk diagnostic products are designed to promote learning and inquiry. By determining areas for improvement and identifying what is most important for a client in terms of managing risk, we help set workers up for success. When it comes to incident analysis, the goal is to equip people in the field to reduce their exposure to events that could cause serious harm. Similarly, when it comes to critical risk, organisations need to assume that an unwanted event will likely happen if not adequately controlled. A positive focus on the effective implementation of critical controls enables the organisation to reduce risk as well as learn from how work is done and improve human reliability in high-risk work.

Choosing the right solution for your business

	Incident Severity Analysis	Meta Incident Analysis
	Identification of incidents with serious or fatal potential	**Deep-dive analysis of incidents with serious or fatal potential**
The organisation learns: • How to look at POTENTIAL severity more accurately • Where to more accurately focus scarce investigation resource and capability • Which high-risk work categories are most likely to be poorly controlled	○	●
Leaders learn: • Which critical risk controls are not working and whether they are 'enabled' • Where to strategically focus critical control verification • Where their people are most likely to make specific types of cognitive errors and why • Why workers feel they need to 'work around' critical procedures • What local operating contextural issues contribute to above • Which leadership and/or supervision behaviours need further development		●
Risk owners learn: • Which components of the safety management system need improvement • Which other system (blunt-end) factors perpetuate reliability issues at the front line		●
The safety function learns: • Where to focus incident management system improvement effort		●

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Incident Analytics™ POWERED BY

The Outcome

Take a deep dive into your serious incident data and learn how your organisation can better manage high-risk work activities to improve safety outcomes. Through the *Meta Incident Analysis* process you will understand:

- how to refine your severity classification system to prioritise your limited resources on the incidents that matter most
- the types of high-severity potential incidents that are routinely flying under the radar
- which incidents are being misclassified and therefore receiving disproportionate attention
- which high-risk exposure activities are most likely to be poorly controlled
- the frequency of high potential events within high-risk categories of work
- the human, local and organisational factors leading to high-severity potential events that require attention
- the effectiveness of your organisation's corrective actions and investigation outputs.

CASE STUDY

Following a fatality and sequence of high-potential near misses, a large mining organisation with over 11 sites in Australia used the *Meta Incident Analysis* to better understand organisational factors and precursors that were still prevalent in the organisation long after the incidents occurred. This informed strategy, improved severity classification and led to a shift in decluttering work practices and a more targeted focus on building capacity in critical risk management.

Ready to leverage learning from your serious incidents to inform systematic improvement opportunities?

Get in touch with one of our expert consultants today

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