

Capacity to be Safe

Why WHS defensibility is becoming an operating-system question for Australian mining.

Executive briefing for CEOs, COOs, VP Operations, General Managers and Site Senior Executives.

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The argument in four paragraphs

Australian mining executives are entering a materially different WHS environment. The 2024 wave of reform — Queensland's Resources Safety and Health Legislation Amendment Act the leading example — alongside enforceable psychosocial-hazard obligations, active-officer due-diligence expectations, industrial-manslaughter provisions and the narrowing of insurance protection under Section 272A, has changed what regulators expect of mine leadership.

The practical implication is not simply that operators need better compliance systems. It is that many existing operating systems are struggling to generate the organisational attention modern safety expectations require, consistently, under production pressure.

The same operating-system conditions that degrade critical-control execution, compress supervisory attention, destabilise planning horizons and generate psychosocial strain also make modern due-diligence expectations harder to sustain in practice. Safety, productivity and executive defensibility are different outputs of the same operating conditions.

The durable response, this briefing argues, is structural rather than behavioural: improve the operating system itself so that effective safety management becomes easier to sustain. A 90-day, fully reversible diagnostic, described in Section 05, is the credible first step.

What changed

Five WHS and regulatory developments have converged over recent years. Individually, each is significant. Together, they materially change the operating context for senior mining leaders.

First, psychosocial hazards are now enforceable WHS obligations. Fatigue, excessive workload, poor supervision, role ambiguity and chronic stress are increasingly being treated as workplace safety hazards alongside physical hazards.

Second, officers' due-diligence obligations are being interpreted and enforced more actively. Reviewing reports and signing attestations may contribute to due diligence, but regulators increasingly expect evidence of active inquiry and verification.

Third, industrial-manslaughter provisions now exist across Australian WHS jurisdictions. Scope and application vary by state, but the underlying direction is consistent.

Fourth, insurance protection has narrowed. Section 272A and equivalent provisions restrict insurance and indemnification arrangements for many WHS penalties. D&O cover may assist with defence costs but generally cannot pay personal WHS penalties.

Fifth, regulators appear to be placing greater emphasis on systemic management factors during investigations. Reviews examine roster design, contractor management, production-planning systems and supervisor span of control.

The underlying hazards are not new. What has changed is the enforcement architecture sitting on top of them.

The compliance paradox

Most organisations respond to increased regulatory pressure in the same way: more procedures, more meetings, more verification, more governance layers. The instinct is understandable.

On unstable operational platforms, those responses can intensify the very conditions they were intended to control. Where production runs near balanced capacity, variability propagates, coordination loads escalate, planning horizons collapse, and supervisory attention compresses. Additional governance requirements then compete for the same finite management attention already consumed by operational recovery.

The pattern increasingly visible across mining operations: the more unstable the operating system becomes, the harder it becomes to sustain the behaviours modern WHS expectations require.



Figure 1. How operational design becomes officer exposure.

How the cascade unfolds

Consider a balanced-capacity open-pit operation. A pit supervisor identifies, during the morning shift, that segregation bunds are at 40 per cent of the required tyre diameter where the standard specifies 50. The escalation protocol requires production to stop while corrective action is taken.

The haul road closes. Trucks reroute, adding twelve minutes per cycle. Haulage capacity drops thirty per cent. The crusher feed rate drops. The processing plant begins cycling. The ROM stockpile cannot bridge. The grader crew is redirected from road maintenance.

By the afternoon the operation is eight hundred tonnes behind target. The afternoon supervisor accelerates truck cycles and defers pre-start inspections on two loaders. Each pre-start inspection is a critical-control verification. The next morning the deferred road maintenance has produced surface deterioration and another near-miss.

Each decision in the cascade is a rational local response. The act of compliance itself destabilises the system. This is not a behavioural problem. No amount of additional discipline at the supervisor level will resolve it while the production-system architecture remains balanced.

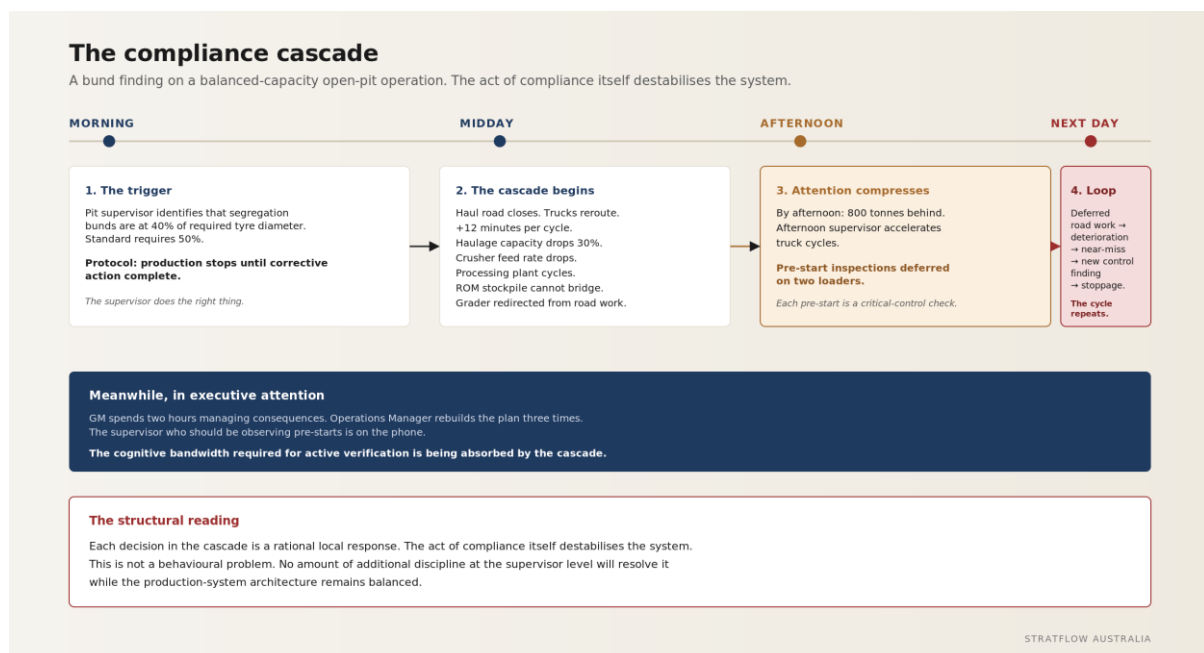


Figure 2. The compliance cascade on a balanced-capacity operation.

The operating-system answer

If the durable response cannot come from asking already-stretched executives to do more, where does it come from? From changing the operating system itself so that the capacity to be safe is created at source. Three structural components, each established in the operations-research literature.

<p>01</p> <p>Protective capacity</p> <p>Identify the one resource whose throughput determines whole-of-mine output. Design non-constraint resources to run with deliberate spare capacity. Disturbances are absorbed rather than propagated. The replanning load on the executive drops sharply within the first month.</p>	<p>02</p> <p>Flow KPIs</p> <p>Constraint throughput, buffer health, disruption count, plan-change frequency. Protecting the constraint becomes the action the measurement system rewards rather than penalises. The end-of-month sprint becomes harder to produce.</p>	<p>03</p> <p>Daily Flow Room</p> <p>Operations, maintenance, planning, geology and safety in one room, asking one forward-looking question: what threatens constraint throughput in the next 12 to 48 hours, and what does each function commit to do about it. Minutes, named attendees, dated commitments — produced as a routine output of how the mine runs.</p>
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This is not a productivity initiative with safety benefits. It is a safety intervention with productivity benefits.

A reversible first step

Few operators will, or should, commit to a wholesale implementation on the basis of a briefing paper. The first step that has worked across more than ninety implementation engagements is a structured 90-day diagnostic. The aim is not to add three months of work. It is to reorganise three months of existing work so the operator can see whether the structural pattern applies to their site.

One. With the leadership team, agree on the one resource that most reliably determines whether the mine meets its daily output target.

Two. Define three to five Flow KPIs covering constraint throughput, buffer health, disruption count and plan-change frequency. Make them the first page of daily and weekly reporting for ninety days. The reporting cadence is run by the existing planning team.

Three. For thirty minutes each morning, replace the existing departmental status meeting with a cross-functional Flow Room asking the one forward-looking question. The meeting is moved, not added. Minute it. Record attendance. Retain the minutes.

The diagnostic is structured and reversible at any point. It generates the evidence base for a full implementation decision while producing, from day one, the dated cross-functional records the new regime now requires for personal due diligence.

Across the engagements I have been involved in, this experiment consistently produces three observable changes within six weeks: plan stability improves, production variability falls, and the morning safety conversation shifts from reactive incident attribution toward proactive constraint protection.

Who this is for, and a way to start

This briefing is likely to be useful to senior mining leaders navigating the post-2024 WHS environment on operations that already feel close to the limit of management attention. It is unlikely to be useful to operators looking for additional training programmes, audit-readiness work, behavioural-safety campaigns, or large-scale transformation initiatives. Those services are available elsewhere and are well covered by other providers.

The work described here is structural and operational. It is conducted with a small number of Australian operators per year. The conversations that follow are not pitches; they are scoping conversations to determine whether the pattern applies.

A 30-MINUTE CONVERSATION

If your operation might be one of them, a scoping call is the cleanest way to start.

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