

SAFETY SUPERVISION

Making Defensible Decisions at the Front Line

STUDENT GUIDE

8 Modules | Online Self-Paced | 2-3 Hours

Certificate issued on completion of all module assessments | tombourne.website

This guide accompanies the online course at tombourne.website. Use it to deepen your understanding of each module, work through the reflection exercises, engage with the case studies, and prepare for assessments. Each module includes expanded concept explanations, a case study card with the resource link, and a paper-based written reflection assessment suitable for both self-study and facilitated delivery.

tombourne.website

Welcome

This course is not about safety compliance. It is about building the thinking of a supervisor who can make and defend safety decisions under pressure — and who understands why those two things should never be in conflict.

Compliance means following the rules when someone is watching. Defensible decision-making means being able to explain your reasoning — to a workmate, to a manager, to a regulator, to a coroner — regardless of whether the outcome was good or bad. Most supervisors do the former. This course builds the latter.

The eight modules give you frameworks — ways of thinking that apply across the situations a checklist cannot cover. By the end, you should be able to take any real safety decision and work through it: What do I know? What is the risk? What does the law require? What is the defensible call? What do I document?

The supervisors who navigate this well are not the ones with the best rulebooks. They are the ones who understand the gap, know when to close it and when to escalate, and can explain their reasoning afterwards.

How to Use This Guide

- Read the expanded concept section before the online module — it gives you depth that prepares you for better engagement with the content
- Use the key concept table as a revision tool before each assessment
- Engage seriously with the case studies — they are not hypotheticals, they are real situations with real decision points
- Complete the written reflection assessment for each module — writing forces precision that reading does not
- The glossary at the back is your reference for every framework and term used across all eight modules

Assessment

Each module has a 5-question quiz (80% pass = 4/5). Module 8 has a 10-question integration assessment (80% = 8/10). The course is locked — you cannot proceed without passing each module. Certificate on completion of all eight.

The 80% standard is a check that you have understood the material well enough to apply it — not a threshold to scrape past. If you are not reaching it, re-read the module and engage with the reflection questions before reattempting.

Case Study Resources

Each module includes a case study embedded in the online course. The case studies are accessible within the relevant module lesson at tombourne.website. For facilitated delivery, case study materials can be projected or printed from the course platform.

Module	Case Study
01	WASS — Identifying the Gap
02	RPC Mining — Reasonably Practicable
03	Mastermyne — Decision Under Pressure
04	Human Factors — Worker State Signals
05	Conversation Quality and Outcome
06	The Sequence Before the Incident
07	After the Incident — Just Culture
08	The Full Integration Scenario

MODULE 01 | 20 min

The Reality of Safety at the Front Line

Safety at the front line is rarely about what is written in the procedure. It is about what you do in the gap between the procedure and the actual conditions in front of you. Every experienced supervisor knows this gap exists — this module gives you a framework to understand it, manage it deliberately, and know when to escalate.

Background

Erik Hollnagel's Safety-II research found that organisations which focus only on failure miss the most important question: why does work succeed most of the time, given imperfect conditions? The answer is that workers and supervisors make continuous small adaptations. These adaptations are competence, not non-compliance. The risk arises when adaptations accumulate beyond what the system can absorb, or when the pattern that guides them stops fitting the situation.

Gary Klein's research into recognition-primed decision making (RPD) showed that experienced operators in high-stakes environments — fire commanders, military leaders, ICU nurses — do not run through lists of options. They recognise the situation as similar to a situation they have handled before, form a course of action, mentally simulate it, and either commit or revise. This is fast, mostly accurate, and carries one significant risk: when the situation has subtly changed in a way that breaks the pattern, the experienced person may be the last to know.

Why This Matters for Your Role

Most safety systems are built on the assumption that compliance with procedure equals safety. This is true in normal conditions and breaks down precisely when you need it most — in abnormal conditions, under pressure, with incomplete information. Understanding the gap means understanding that your judgment is a legitimate and necessary safety tool, not a workaround.

Key Concepts

The third column ('In practice') connects each concept to a question you can apply in your own work.

Concept	What It Means	In Practice
Work-as-imagined	How managers and procedure-writers believe work is carried out. Based on design, not observation. Accurate for typical conditions; always incomplete for the edge cases front-line workers encounter daily.	Ask: does this procedure cover what actually happens on site, or what happens in a training scenario?

Work-as-done	What workers actually do to get the job done safely and efficiently given real conditions: equipment state, time pressure, weather, fatigue, team dynamics, and everything else the procedure did not anticipate.	Observe before you assume. Work-as-done is rarely visible in written reports.
The supervisory gap	The space between work-as-imagined and work-as-done. You live here. Your job is not to pretend the gap does not exist — it is to manage it deliberately and know when to close it versus when to escalate.	The gap is not a failure. Managing it poorly is.
Recognition-primed decision making (RPD)	How experienced supervisors actually make decisions: by matching the current situation to a known pattern and simulating the most likely course of action. Fast and usually right — with one significant risk.	When something feels off about a pattern you know well, pause. That feeling is data.
Safety-II	Erik Hollnagel's framework: rather than only studying what goes wrong, study what enables work to succeed under variable conditions. Safety is not just the absence of incidents — it is the presence of adaptive capacity.	Ask your team: what do you do to make this work that isn't in the procedure?

Common Misconceptions

- Misconception: The gap means procedures are useless. Reality: Procedures are essential — they describe what good practice looks like in typical conditions. The gap exists because no procedure can anticipate every real condition. The skill is knowing when to follow, when to adapt, and when to escalate.
- Misconception: Experienced supervisors don't need frameworks. Reality: Experience provides the pattern library for RPD. Frameworks provide the check on whether the pattern fits. You need both.

The Point to Take Away

The procedure describes a world that does not quite exist. The supervisor is the person who bridges the gap between that world and this one. Doing that well requires more than following instructions — it requires judgment, and judgment requires understanding.

Case Study

CASE STUDY | Module 01

WASS — Identifying the Gap

A supervisor at a WASS site identifies a discrepancy between the task as briefed and the actual conditions encountered on site. The case examines the decision architecture — what choices were available, what information was present, and what a supervisor operating at the standard of this course would have done.

What to focus on: When was the gap first visible? At what point did adaptation become inadequate and escalation become necessary? What documentation would have been appropriate and when?

Access the case study resource: <https://tombourne.website/course/safety-supervision/>

MODULE 01 — WRITTEN REFLECTION ASSESSMENT

For facilitated delivery: complete individually. Allow 15 minutes. Share selected responses with the group.

Question 1

Describe a specific gap you have navigated between a procedure and real conditions this month. What made it manageable? What would have made it necessary to escalate?

Question 2

Think of a time your experience told you the job was fine — and you were wrong, or nearly wrong. What had changed that your initial read missed?

Question 3

What does 'managing the gap well' look like in your specific role? What does it look like when it goes wrong?

MODULE 02 | 20 min

What Reasonably Practicable Actually Means

Most supervisors have heard the phrase 'reasonably practicable' hundreds of times. Most cannot say precisely what it means in practice. This module makes the legal standard operational — not as a definition to recite, but as a test you can apply to any real decision before you make it.

Background

Section 18 of the Work Health and Safety Act defines reasonably practicable as 'what is reasonably able to be done to ensure a worker or other person's health and safety, having regard to and giving appropriate weight to' five factors. The critical word is 'appropriate weight' — the standard requires judgment, not arithmetic. Each factor interacts with the others.

The phrase 'what a person knows or ought reasonably to know' is the most important in the definition. It sets the temporal standard: the test is what was known or should have been known at the time of the decision, not what was revealed by the incident. This is protective if the decision was made at that standard. It is not protective if the supervisor was aware of a risk and chose not to act.

The hierarchy of controls is not just a conceptual model — it is a legal tool. If an engineering control was available and an administrative control was used instead, the supervisor must be able to explain why the higher control was not reasonably practicable. 'We've always done it this way' is not an explanation.

Why This Matters for Your Role

The reasonably practicable test is the standard against which your decisions will be measured by a regulator, a coroner, or an investigator. Most supervisors are applying a version of this test already — implicitly and incompletely. This module makes it explicit and complete, which is both better practice and better protection.

Key Concepts

The third column ('In practice') connects each concept to a question you can apply in your own work.

Concept	What It Means	In Practice
Reasonably practicable	What is reasonably able to be done, given: (1) likelihood of the hazard occurring; (2) degree of harm; (3) what is known or ought to be known; (4) availability and suitability of	Apply all five factors explicitly before significant task decisions. Write them down.

	controls; (5) cost, but only if grossly disproportionate to the risk.	
The temporal standard	The test is what you knew, or ought to have known, at the time of the decision — not what was revealed by the incident. Investigators and courts apply this standard retrospectively.	Your documentation must capture what you knew before the decision, not after.
Hierarchy of controls	Eliminate → Substitute → Isolate → Engineer → Administer → PPE. Higher controls are more reliable because they depend less on human behaviour under pressure. PPE is the least reliable control and should not be the primary response to a significant risk.	For any significant hazard — ask: why is this not being controlled at a higher level?
The cost test	Cost only becomes relevant when it is grossly disproportionate to the risk. This is interpreted strictly by courts. Most organisations use cost as a justification far more broadly than the law permits.	If cost is the reason for a lower control — document it explicitly and honestly.
Defensible documentation	A written record that establishes what you knew, what controls were in place, and why your decision was consistent with the reasonably practicable standard. Not bureaucracy — evidence of professional practice.	If you were investigated tomorrow, would your records show you applied this test?

Common Misconceptions

- Misconception: The standard is too vague to be useful. Reality: It is intentionally not prescriptive because the risks are contextual. The five factors give it structure. The documentation makes it defensible.
- Misconception: If no one got hurt, the decision was fine. Reality: The test is not outcome-based. A decision that led to no harm may still not have met the reasonably practicable standard. And vice versa.

The Point to Take Away

The reasonably practicable test asks what you knew or ought to have known at the time of the decision. That is the standard applied by investigators, regulators, and coroners. Your decision needs to withstand that test — and your documentation needs to demonstrate

that it does.

Case Study

CASE STUDY | Module 02

RPC Mining — Reasonably Practicable in Practice

A supervisor at an RPC Mining site must make a risk decision given the available controls, the time available to implement alternatives, and the pressure to maintain schedule. The case examines whether the decision met the reasonably practicable standard — and what the documentation showed.

What to focus on: Was the hierarchy of controls applied at the highest available level? What did the supervisor know about the risk at the time? Was the cost of better controls genuinely grossly disproportionate to the risk — or was it simply inconvenient?

Access the case study resource: <https://tombourne.website/course/safety-supervision/>

MODULE 02 — WRITTEN REFLECTION ASSESSMENT

For facilitated delivery: complete individually. Allow 15 minutes. Share selected responses with the group.

Question 1

Take a significant safety decision you made in the last two weeks. Apply the five factors explicitly: what did you know about likelihood, degree of harm, available controls, and cost? What factor did you not explicitly consider?

Question 2

Where in your current role is the hierarchy of controls not applied as high as it could be? What is the stated reason? Is that reason consistent with the legal definition of 'grossly disproportionate'?

Question 3

What would your written decision record look like for the most significant safety decision you made last month? Write a draft. What would it not be able to defend?

MODULE 03 | 25 min

Decision Making Under Pressure

Pressure degrades the quality of safety decisions. Not because supervisors stop caring — but because the brain under cognitive load defaults to shortcuts that are usually right and sometimes dangerously wrong. This module identifies the most important shortcuts, explains why they operate, and gives you practical techniques to compensate.

Background

Cognitive biases are not character flaws or signs of incompetence. They are how the human brain works efficiently under load. Confirmation bias — seeking information that confirms a decision already made — saves time in stable conditions and produces errors in changing ones. Anchoring — over-weighting the first piece of information received — is the mechanism behind missed hazard escalation: the job was safe at 7am, and the supervisor's model does not update adequately as conditions change during the day.

Diane Vaughan's analysis of the Challenger space shuttle disaster gave safety science one of its most important concepts: normalisation of deviance. Over years of launches, engineers noticed O-ring erosion at low temperatures. Each time, the shuttle returned safely. Each near-miss was reclassified as acceptable risk. The boundary between acceptable and unacceptable shifted incrementally until the day it was fatal. This process is not unusual. It is operating in every high-risk industry right now.

The pre-task conversation, applied rigorously, is one of the most powerful tools for interrupting these cognitive patterns. It forces explicit articulation of what could go wrong — which activates different cognitive pathways than pattern-matching. It also surfaces information from workers who may have observations the supervisor does not.

Why This Matters for Your Role

Production pressure, time pressure, and fatigue all increase cognitive load. Cognitive load increases reliance on pattern-matching and decreases systematic reasoning. This is the normal operating condition for supervisors in high-risk industries. Without deliberate compensating habits, good judgment under pressure is a matter of luck.

Key Concepts

The third column ('In practice') connects each concept to a question you can apply in your own work.

Concept	What It Means	In Practice
Confirmation bias	The tendency to seek out and weight information that confirms a decision	Ask yourself: what information would I find most

	already made, while discounting information that challenges it. Once a supervisor decides a job is safe to proceed, they often stop looking for evidence that it is not.	inconvenient right now? Then go looking for it.
Normalisation of deviance	The gradual process by which deviations from safe practice become accepted as normal. Named by Diane Vaughan in her study of the Challenger disaster. The boundary between acceptable and unacceptable shifts incrementally over time, with no single visible decision point.	Name the drifts. What practice in your team has moved from 'we don't do that' to 'we sometimes do that' to 'that's just how it's done'?
Anchoring	Over-weighting the first piece of information received when forming a judgment. If the job was safe at 7am, the supervisor may not adequately update that assessment as conditions change through the shift.	Reassess. Ask explicitly: 'What has changed since this task was last assessed?'
Pre-task conversation	A structured, two-way exchange before a task begins. Four components: what are we doing and why does it matter; what could go wrong; what are we doing about it; what do you do if it changes. The supervisor listens as much as talks. Workers are the primary source of information about actual task conditions.	The test: after the conversation, do you know more about the task than before it? If not — it was a briefing.
Decision documentation	A brief contemporaneous record of the key factors that informed a significant decision: what conditions were present, what was done, and why. Created before or at the time of the decision, not reconstructed after.	Write it before the task. Your memory of your reasoning degrades quickly and is not legally useful.

Common Misconceptions

- Misconception: Experienced supervisors are immune to cognitive bias. Reality: Experience increases the speed and confidence of pattern-matching, but does not reduce susceptibility to bias. It may increase it, because experienced supervisors have more reason to trust their initial read.
- Misconception: There is no time for a structured pre-task conversation. Reality: A four-component pre-task conversation takes 5-7 minutes. An incident investigation takes

months. The comparison is not between time spent on the conversation and time saved — it is between time spent on the conversation and time consumed by the consequences of not having it.

The Point to Take Away

Writing down the key decision factors before a task begins is one of the most powerful tools a supervisor has. It forces clarity, creates a record, activates systematic reasoning, and makes you accountable to yourself before you are accountable to anyone else.

Case Study

CASE STUDY | Module 03

Mastermyne — Pressure, Pattern-Matching, and What Was Missed

A supervisor at a Mastermyne site makes a risk decision under production pressure. The decision draws on pattern-matching from previous similar tasks. The case traces what changed between the previous tasks and this one, and when that change became visible.

What to focus on: Which cognitive biases were operating and how? When was the most recent decision point where the supervisor could have acted differently? What would a structured pre-task conversation have surfaced that the pattern-match missed?

Access the case study resource: <https://tombourne.website/course/safety-supervision/>

MODULE 03 — WRITTEN REFLECTION ASSESSMENT

For facilitated delivery: complete individually. Allow 15 minutes. Share selected responses with the group.

Question 1

Describe a decision you made under significant time pressure in the last month. In retrospect: which of the three biases (confirmation, normalisation, anchoring) were operating? What information did you discount or fail to seek?

Question 2

Identify one practice in your current work environment that has normalised away from where it should be. When did that drift start? What stopped it from being corrected?

Question 3

Design a pre-task conversation for your highest-risk regular task. Write the four questions you would ask workers. What answers would change your plan?

MODULE 04 | 20 min

The Human Side of Supervision

Worker state is a safety variable. A supervisor who cannot assess it is operating with incomplete information about the conditions of the task. This module gives you the framework to read what workers bring to the job — and to create the conditions where they will actually tell you what they know.

Background

Amy Edmondson's research on psychological safety began in hospital settings and has been replicated across industries including aviation, manufacturing, and high-technology firms. Her consistent finding: the strongest predictor of team performance and safety outcomes is not individual competence, nor the quality of procedures, but whether team members believe they can raise concerns, admit errors, and ask questions without being punished.

This is counterintuitive. Most organisations focus on individual competence and procedural compliance as the primary safety levers. Edmondson's research suggests these are necessary but not sufficient. A team of competent, well-trained individuals with good procedures who do not feel psychologically safe to speak up will systematically suppress the information the supervisor most needs.

Psychological safety is not a disposition — it is a climate, created and destroyed through daily micro-behaviours. The most powerful of these: how a supervisor responds the first time a worker raises a concern that turns out to be unfounded. If the response is dismissive or punitive, the team learns the lesson immediately. Future concerns stay unspoken.

Why This Matters for Your Role

Most incident investigations cite human error as a contributing factor. Most do not ask what the human was experiencing at the time — their fatigue level, psychological state, or confidence that raising a concern would be safe. Until these variables are measured, managing them is impossible.

Key Concepts

The third column ('In practice') connects each concept to a question you can apply in your own work.

Concept	What It Means	In Practice
Worker state factors	The five dimensions of worker state that affect safety performance: fatigue (including acute sleep variation), psychological state (stress,	Observe before assigning tasks. Worker state is observable if you know what to look for.

	distraction, anxiety), physical condition (pain, illness, heat stress), social dynamics (team conflict, peer pressure), and organisational trust (belief that safety is genuinely valued).	
Psychological safety	Amy Edmondson's term for the belief that you will not be punished for speaking up — raising concerns, admitting errors, asking questions. The strongest predictor of team safety performance. Created or destroyed through supervisor behaviour, not safety policies.	Every response to a concern is a deposit or a withdrawal. What are you doing most of?
Organisational trust	The degree to which workers believe that safety is genuinely valued — not just stated. Workers with low organisational trust will not report near-misses because they believe reporting carries personal risk and provides no benefit. This suppresses the information system that early intervention depends on.	If your team's near-miss reporting rate is low — ask why. The answer tells you about trust, not incidence.
Behavioural observation	The practice of actively attending to changes in worker behaviour — pacing, communication style, eye contact, clustering before tasks — as indicators of state that may affect performance or safety. Not surveillance: intelligence gathering.	What does each person on your team look like when they are having a bad day? Do you know?
Fatigue as a performance variable	Research finding: at 17 hours without sleep, cognitive performance is equivalent to a blood alcohol level of 0.05. At 24 hours, equivalent to 0.10. Most shift workers operate in conditions where some level of performance degradation from fatigue is the norm.	Fatigue is not always visible. Affected workers often do not know they are impaired.

Common Misconceptions

- Misconception: Psychological safety means workers can say anything without consequences. Reality: Psychological safety is about interpersonal risk — the belief that speaking up is safe. It is not about removing performance standards or accountability.

- **Misconception:** If a worker seems fine, they are fine. **Reality:** Workers experiencing fatigue, psychological distress, or low organisational trust often do not appear distressed. And they are often the last to say so.

The Point to Take Away

You create or destroy psychological safety through your daily behaviour. Every time a worker raises a concern, the way you respond either makes the next person more or less likely to raise one. That is not abstract — it has direct incident causation implications.

Case Study

CASE STUDY | Module 04

Human Factors — What the Supervisor Did Not See

A scenario-based case examining observable signals of worker state — fatigue, psychological distraction, social tension — that were present before a near-miss and not acted on. The case asks what a supervisor attending to those signals might have done differently, and what specifically made them difficult to see.

What to focus on: What signals were visible and when? What cognitive and social barriers prevented the supervisor from acting on them? What would a structured pre-task state assessment have produced?

Access the case study resource: <https://tombourne.website/course/safety-supervision/>

MODULE 04 — WRITTEN REFLECTION ASSESSMENT

For facilitated delivery: complete individually. Allow 15 minutes. Share selected responses with the group.

Question 1

How do you currently assess whether a specific worker is in a fit state to perform a high-risk task? Be specific about method, not intention.

Question 2

Describe a specific interaction in the last month where a worker raised a safety concern with you. What happened in the 30 seconds after they raised it? What did they learn about the cost and benefit of raising concerns from that interaction?

Question 3

Which worker on your current team is least likely to tell you about a problem they are having? Why? What would need to change for that to be different?

MODULE 05 | 25 min

Conversations That Change Behaviour

Telling workers to be safe does not make them safe — it makes them compliant when you are watching. The gap between compliance and genuine safe behaviour is the gap between instruction and understanding. This module is about closing that gap.

Background

Motivational interviewing (MI) originated in addiction treatment in the 1980s and has been validated across contexts including health behaviour change, safety coaching, and organisational development. The core finding: behaviour driven by a person's own internally articulated reasons for change is more durable than behaviour driven by external instruction.

Applied to safety, this means the goal of a pre-task conversation is not to tell workers what the risks are — they often know — but to help them articulate their own understanding of the risk, their own reasons for the control, their own commitment to the safe behaviour. The supervisor's role shifts from information transmitter to facilitator.

The follow-through component is where most supervisors' practice breaks down. A supervisor who consistently runs good pre-task conversations but does not follow up during the task teaches workers that the conversation is procedural ritual, not genuine interest. Mid-task check-ins — even brief ones — transform the meaning of the pre-task conversation. They signal: I said I care about this outcome, and I do.

Why This Matters for Your Role

If workers only behave safely when the supervisor is present, the safety system requires constant surveillance to function. That is not a safety system — it is a monitoring requirement. Genuine safe behaviour requires workers to own the reasoning, not just execute the instruction.

Key Concepts

The third column ('In practice') connects each concept to a question you can apply in your own work.

Concept	What It Means	In Practice
The compliance trap	Instruction-based safety generates compliance in the supervisor's presence and reversion when unobserved. Workers optimise for the incentives actually in place. If the incentive is 'pass the supervisor's	Ask: what safety behaviours in your team only happen reliably when you are watching?

	check', behaviour will reflect that — not the safety goal behind it.	
Genuine pre-task conversation	A structured two-way exchange with four components: (1) what are we doing and why does it matter; (2) what could go wrong — specifically; (3) what are we doing about it; (4) what do you do if something changes. The supervisor is primarily listening, not talking.	After the conversation: do you know more about the task risks than before? If not — it was a briefing.
Motivational interviewing (MI)	A facilitation technique that helps people surface their own reasons for behaviour change rather than accepting externally imposed ones. Core tools: open questions, reflective listening, affirming strengths, summarising. Behaviour driven by internal motivation is significantly more durable.	Replace 'You need to...' with 'What do you think the main risk is here?'
Eliciting worker knowledge	Workers performing a task have information the supervisor does not: what has changed since the last time the task was done, what equipment is behaving unusually, what team dynamics are present, what they are worried about. The pre-task conversation is the tool for surfacing this.	'What am I not seeing from where I'm standing?' — ask this every time.
Follow-through	Checking in during the task — not just before it. The purpose is twofold: to gather current risk information as conditions evolve, and to signal that the pre-task conversation was genuine engagement, not procedural compliance.	Build one mid-task check-in per significant task into your routine. 10 minutes. It changes what the pre-task conversation means.

Common Misconceptions

- **Misconception:** Workers already know the risks — the conversation is just a formality. **Reality:** Workers know the planned risks. The pre-task conversation surfaces the actual risks — the ones that have changed since the last assessment, the ones only visible from the worker's position.
- **Misconception:** Motivational interviewing is too slow for a site environment. **Reality:** The four-component conversation takes 5-7 minutes. The tools of MI — open questions,

reflection — add seconds per exchange. The return on that investment, in terms of information quality and behavioural durability, is substantial.

The Point to Take Away

After a genuine pre-task conversation, you should know more about the task and the risk than you did before it. If you do not — it was a briefing, not a conversation. The difference is not technique. It is intent.

Case Study

CASE STUDY | Module 05

Conversation Quality and Outcome

A scenario tracing the relationship between the quality of a pre-task conversation and the task outcome. The case examines what the conversation covered, what it failed to surface, and how the four-component structure — applied rigorously — would have changed both the information available and the decision made.

What to focus on: Was the supervisor listening or briefing? What worker knowledge was not surfaced? Which component of the four-part structure was missing? What would motivational interviewing have produced that direct instruction did not?

Access the case study resource: <https://tombourne.website/course/safety-supervision/>

MODULE 05 — WRITTEN REFLECTION ASSESSMENT

For facilitated delivery: complete individually. Allow 15 minutes. Share selected responses with the group.

Question 1

Compare your last toolbox talk with the four-component conversation structure. Which components were missing? What would the conversation have looked like if all four were present?

Question 2

Write down the last time a worker told you something in a pre-task conversation that changed what you did. If you cannot remember one — what does that tell you about the quality of your conversations?

Question 3

Design a follow-through plan for your next significant task. When will you check in? What will you be looking for? What will you do with what you find?

MODULE 06 | 20 min

When Things Start Going Wrong

Incidents are rarely sudden. They are the end of a sequence of small degradations — in controls, in communication, in worker state — that were visible in retrospect and invisible in the moment. The supervisory skill is seeing the sequence before it completes, and knowing when escalation is required.

Background

James Reason's Swiss Cheese model remains one of the most useful conceptual tools in safety management because it shifts focus from individual failure to system failure. Each barrier has holes. Normal operations succeed because holes rarely align. Incidents occur when holes align across multiple barriers simultaneously — often because several barriers have been partially degraded over time through a combination of pressure, resource constraints, and normalisation.

The model has a critical implication for supervisors: your role is not just task completion — it is barrier integrity monitoring. Are the barriers that should be in place, in place? Are they at full strength? If near-misses are not being reported, you have lost one of the primary indicators of barrier state. If shortcuts have become standard, you have lost another barrier. The question is not whether today's task will succeed. It is whether the barriers that would stop it failing are still intact.

Escalation is the supervisory tool that most supervisors underuse. The barriers to escalation are real and well-documented: fear of appearing incompetent, production pressure, uncertainty about whether the concern is valid, and past experience of escalation that went badly. Understanding these barriers is the first step to overcoming them.

Why This Matters for Your Role

By the time an incident occurs, the precursor sequence is usually well-established and would have been visible to someone actively monitoring for it. The supervisors who prevent incidents are the ones who recognise the sequence while it can still be interrupted — not the ones who respond well after it has completed.

Key Concepts

The third column ('In practice') connects each concept to a question you can apply in your own work.

Concept	What It Means	In Practice
Warning signals	Six observable indicators of system drift toward failure: rising near-miss frequency; shortcuts becoming	Monitor all six. If three or more are present simultaneously — this is an

	standard practice; growing reliance on PPE for hazards that could and should be engineered out; communication breakdown (problems reported upward less frequently); fatigue accumulation; normalised time pressure (jobs consistently taking longer than planned).	escalation situation.
Swiss Cheese model	James Reason: each safety barrier has holes (weaknesses). Normal operation succeeds because holes rarely align. Incidents occur when holes in multiple barriers align simultaneously. Supervisors maintain barrier integrity, not just task completion.	Name your barriers. For each one: is it at full strength today? What would reduce it?
Barrier degradation	The process by which barriers develop or widen their holes over time: through resource constraints, production pressure, gradual acceptance of shortcuts, and loss of near-miss data. Often gradual and invisible until a sequence of aligned holes produces an incident.	Ask weekly: which of our barriers has degraded since last week?
Near-miss data	Information from events that did not result in harm but that reveal the state of barriers. The most valuable leading indicator of incident risk. When near-misses are not reported, barrier state becomes invisible to the supervisor.	A team with no reported near-misses is not a safe team. It is a team where near-miss data is being suppressed.
The escalation decision	The supervisory judgment that a situation exceeds what can be managed at the current level — and that a higher authority, more resources, or a task pause is required. The 30-minute test: if this continues unchanged for another 30 minutes, what is the worst credible outcome? If you would not be comfortable with that outcome — escalate.	Escalation is not failure. Failing to escalate when escalation is required — and having an incident as a result — is failure.

Common Misconceptions

- Misconception: Stopping a job because of a warning signal is overreacting. Reality: The cost of stopping a task that would have been fine is minor and recoverable. The cost of not stopping a task that was heading toward a fatality is neither.
- Misconception: If the team is experienced, they would tell me if something was wrong. Reality: Experienced teams are often more likely to normalise warning signals than less experienced ones. Normalisation of deviance increases with experience, not decreases.

The Point to Take Away

Near-misses are not close calls to be relieved about. They are data about the current state of your barriers. A workplace where near-misses go unreported is a workplace where the barriers are degrading and the supervisor does not know.

Case Study

CASE STUDY | Module 06

The Sequence Before the Incident

A case with a visible precursor sequence: warning signals present and available, barriers degraded, escalation decision available but not taken. The facilitation goal is to identify, working backwards from the incident, the earliest point at which a different supervisor choice would have changed the outcome.

What to focus on: Which of the six warning signals were present and when? What barriers had degraded before the incident? At what point was escalation the required response? What made that escalation difficult?

Access the case study resource: <https://tombourne.website/course/safety-supervision/>

MODULE 06 — WRITTEN REFLECTION ASSESSMENT

For facilitated delivery: complete individually. Allow 15 minutes. Share selected responses with the group.

Question 1

Identify the three warning signals most likely to be present in your current work environment. For each one: what specifically would you see or hear that would tell you it was present?

Question 2

Describe a situation where you escalated a safety concern. What made you decide to do it? What was the response? What would have happened if you had not escalated?

Question 3

What stops escalation in your organisation? Be specific: is it culture, is it the response escalation typically receives, is it uncertainty about what escalation looks like, or something else?

MODULE 07 | 20 min

Balancing Accountability and Fairness

Blame-based investigation is the most common post-incident response in high-risk industries. It is also the most counterproductive. It stops analysis at the nearest person rather than the nearest cause — and it guarantees that the system conditions that produced the incident remain in place for the next one. This module gives you a more accurate and more effective framework.

Background

David Marx developed the Just Culture framework while working on aviation safety and medical error at the VA hospital system. His insight was that the same event — a nurse administering the wrong medication — could be the result of a system failure, a training failure, a risk that was not understood, or a conscious choice to disregard a known standard. Each requires a different response. Applying the same response to all four — typically discipline — produces the worst outcome for each: it removes incentive to report errors, removes the information that would prevent recurrence, and applies disproportionate consequences to people who acted without harmful intent.

The ICAM (Incident Cause Analysis Method) framework provides a structured investigation methodology consistent with Just Culture principles. ICAM traces from the immediate events at the sharp end back through individual factors, task and environmental conditions, to the organisational and systemic factors that made the incident possible. It explicitly distinguishes between active failures (the actions that directly produced the harm) and latent conditions (the organisational factors that made those actions possible and failed to catch them).

For supervisors, the most important application of this module is not how to investigate others — it is how to document their own decisions. A supervisor who has contemporaneous records of their decision reasoning is significantly better positioned in any investigation than one who relies on memory.

Why This Matters for Your Role

If the response to every incident is to discipline the nearest person, the system learns nothing and the conditions that produced the incident persist. The same incident will recur — with different people in the roles. Just Culture is not a softer accountability standard. It is a more accurate one that actually prevents recurrence.

Key Concepts

The third column ('In practice') connects each concept to a question you can apply in your own work.

Concept	What It Means	In Practice
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Human error	An unintended action that produced an unintended outcome. The person did not intend to create risk or cause harm. The cause is usually system design, training gaps, or conditions that made error more likely. Response: console, learn, fix the system. Applying discipline to human error suppresses reporting and prevents system learning.	Before concluding someone 'did the wrong thing' — ask: was this the kind of decision any competent person in that position might have made?
At-risk behaviour	A choice to engage in behaviour that creates risk — where the person did not fully recognise the risk, or believed the risk was low or justified. Often produced by an incentive structure that makes the at-risk behaviour the rational choice. Response: coach, redesign the incentive.	If the at-risk behaviour was the most efficient way to get the job done — why was it? What made the safe path harder?
Reckless behaviour	A conscious choice to disregard a substantial and known risk. Requires genuine evidence of conscious disregard: not poor judgment under pressure, not an unrecognised risk, not a misapplication of a procedure. Response: discipline is appropriate here.	The bar for recklessness is high. Most incidents do not involve it. Classify carefully.
ICAM	Incident Cause Analysis Method: traces from immediate event → individual factors → task and environment conditions → organisational factors. Explicitly distinguishes between active failures (sharp end) and latent conditions (organisational). Designed to identify what needs to change, not who to blame.	If your investigation stops at the individual — it has not finished. Keep going until you reach the organisational conditions that made the individual failure possible.
Contemporaneous documentation	Records made at or near the time of the decision, not reconstructed after an incident. Legally and practically more valuable than reconstructed accounts. Establishes what was known, what was decided, and the reasoning — from the supervisor's perspective, before the outcome was known.	A shift log entry. A sent email. A photo with a timestamp. Something that establishes: here is what I knew, here is what I did.

Common Misconceptions

- Misconception: Just Culture means no one is held accountable. Reality: Just Culture requires more rigorous accountability — it requires accurately classifying the behaviour and applying the proportionate response. Applying discipline to human error is not accountability — it is misdirection.
- Misconception: Supervisors should stay out of investigations. Reality: Supervisors are primary witnesses with direct knowledge of conditions at the time of the incident. Their contemporaneous documentation and their accurate account of what they observed are essential inputs to a valid investigation.

The Point to Take Away

A supervisor who documents what they observed, what decisions they made, and why, is significantly better positioned in any investigation than one who did not. Documentation is not preparing your defence — it is having an accurate record of professional practice that speaks for you when the pressure is highest.

Case Study

CASE STUDY | Module 07

Ardent Leisure and the Dreamworld Tragedy

A post-incident scenario where participants apply the Just Culture categories to the behaviour involved, identify the appropriate response, work through what an ICAM analysis would reveal about organisational conditions, and consider what documentation the supervisor should have had — and now needs to provide.

What to focus on: Where on the Just Culture spectrum did the behaviour fall? What response was applied — and was it proportionate? What would an ICAM analysis reveal that a blame-based investigation missed? What should the supervisor document and when?

Access the case study resource: <https://tombourne.website/course/safety-supervision/>

MODULE 07 — WRITTEN REFLECTION ASSESSMENT

For facilitated delivery: complete individually. Allow 15 minutes. Share selected responses with the group.

Question 1

Think of an incident or near-miss you were involved in or witnessed. Apply the Just Culture categories: was the behaviour human error, at-risk, or reckless? What response was actually given? Was it proportionate to the correct category?

Question 2

Describe a case where a blame-based investigation response affected people's willingness to report future incidents or near-misses. What were the long-term effects on the safety information available to supervision?

Question 3

What does your current documentation practice look like for significant decisions? If you were asked to reconstruct the reasoning behind your three most significant decisions last month — what would you be able to show?

MODULE 08 | 25 min

Applying It All — Integration Scenarios

Everything from the previous seven modules comes together here. The integration scenario does not have a single correct answer. It has a reasoning standard — and the question is whether your reasoning, applied systematically, meets it.

Background

The Friday afternoon integration scenario is designed to require active use of all eight modules simultaneously. Most real decisions of consequence work this way — they do not announce which framework is relevant. They arrive as a complex, pressured, time-limited situation with incomplete information and competing demands. The skill is knowing how to unpack that situation using the frameworks available.

The five-question defensibility test is the practical tool that ties the course together. These five questions can be applied to any significant task decision in under ten minutes. They do not guarantee a correct outcome — outcomes depend on information quality, conditions, and factors outside anyone's control. They do guarantee a defensible reasoning process: one that could be explained to a regulator, described to a coroner, or taught to the next person in the role.

The certificate issued on completion of this course is a record of assessed competence — not a licence to make safety decisions. Those decisions have been yours throughout your career. What this course provides is a more explicit, systematic, and defensible framework for making them.

Why This Matters for Your Role

The course gives you frameworks. This module gives you a way to use them together under pressure. That is the only situation that matters — because frameworks applied in calm, uncomplicated conditions are not where safety value is created.

Key Concepts

The third column ('In practice') connects each concept to a question you can apply in your own work.

Concept	What It Means	In Practice
The defensible decision	A decision you can explain to a regulator, investigator, or coroner: what you knew, what the risk was, what controls were in place, and why the decision you made was the	Before acting on a significant decision: could you explain your reasoning right now? If not — you need more information or more time.

	reasonable one given all of that. Not the perfect decision under hindsight — the defensible decision under the information available at the time.	
The five questions	(1) What hazards are present and what is the current state of controls? (2) What has changed from the original task plan? (3) What does the reasonably practicable standard require given current conditions? (4) What is the worst credible outcome if this continues? (5) What is my decision and what is my documentation?	These five questions should be habitual. Ask them before every significant decision, not just the ones that look complicated.
Integration of frameworks	In real decisions, multiple frameworks apply simultaneously. The Friday afternoon scenario requires: work-as-done analysis (M1), reasonably practicable assessment (M2), cognitive bias awareness (M3), worker state assessment (M4), pre-task conversation (M5), warning signal recognition (M6), and Just Culture documentation awareness (M7).	No incident is explained by a single framework. No decision is made by one either.

Common Misconceptions

- Misconception: There is a right answer to the integration scenario. Reality: There are better and worse answers, and the quality is in the reasoning, not the conclusion. Two supervisors can reach the same conclusion by different reasoning paths — one of which is defensible and one of which is not.
- Misconception: Completing the course means you are qualified to make safety decisions. Reality: You were always making safety decisions. The course gives you a more systematic framework for making them, and a more explicit language for explaining and documenting them.

The Point to Take Away

The supervisors who navigate high-risk work well are not the ones with the best rulebooks. They are the ones who understand the gap, know when to close it and when to escalate, and can explain their reasoning afterwards — to a regulator, to an investigator, to a coroner if necessary. That is what this course has been building.

Case Study

CASE STUDY | Module 08

The Full Integration Scenario

The Friday afternoon scenario. Participants work through the five questions individually, then in pairs, then as a group. There is no single correct answer — but there is a reasoning standard that a competent, reasonable supervisor meets. The case assessment is: does your reasoning show systematic use of the frameworks from all eight modules?

What to focus on: Can you show your reasoning from each of the eight frameworks applied to this specific situation? Can you articulate — in writing — what each framework tells you to do with the Friday afternoon scenario?

Access the case study resource: <https://tombourne.website/course/safety-supervision/>

MODULE 08 — WRITTEN REFLECTION ASSESSMENT

For facilitated delivery: complete individually. Allow 15 minutes. Share selected responses with the group.

Question 1

THE INTEGRATION SCENARIO: It is 3pm on a Friday. Your job is two hours behind schedule due to a late material delivery. One worker on your team started at 5am and is visibly fatigued. The final stage of the task involves working at height. The client has called three times in the last hour. Apply the five questions. Write your decision and your reasoning. Be specific about which frameworks informed each part of your reasoning.

Question 2

Which of the eight modules has most changed how you understand your role as a supervisor? What specifically do you now think about differently?

Question 3

What will you do differently on your next shift? Name the specific behaviour, the specific context, and the specific reasoning from this course that led to that commitment.

Key Terms Glossary

All frameworks and concepts used across the eight modules, in alphabetical order. Use this as a revision reference before assessments and as a practical tool when applying frameworks in your work.

Term	Definition
Anchoring	Over-weighting the first piece of information received when forming a judgment. The supervisor who assessed a job as safe at 7am may not adequately update that assessment as conditions change through the day. Antidote: ask explicitly what has changed since the last assessment.
At-risk behaviour	A behaviour that creates risk where the person did not fully recognise the risk, or believed it was justified. Often produced by incentive structures that make the at-risk behaviour the rational choice. Response: coach, and redesign the incentive. (David Marx, Just Culture)
Barrier degradation	The process by which safety barriers develop or widen their holes over time, through resource constraints, production pressure, gradual acceptance of shortcuts, and loss of near-miss reporting data. Often gradual and invisible.
Behavioural observation	Active attention to changes in worker behaviour — pacing, communication, eye contact, clustering — as indicators of state that may affect performance and safety. Intelligence gathering, not surveillance.
Confirmation bias	The tendency to seek information that confirms a decision already made and to discount information that challenges it. The mechanism by which supervisors stop looking for evidence that a job is unsafe once they have decided it is safe.
Contemporaneous documentation	Records made at or near the time of a decision, not reconstructed after an incident. Legally and practically more valuable than reconstructed accounts because they capture what was known at the time, not what was known after the outcome.
Defensible decision	A decision that can be explained to an investigator, regulator, or coroner: what was known, what the risk was, what controls were in place, and why the decision was the reasonable one given the information available at the time.
Fatigue	A safety-relevant performance variable. At 17 hours without sleep, cognitive performance is equivalent to 0.05 BAC. At 24 hours, equivalent to 0.10. Affected individuals often do not recognise their own impairment.
Follow-through	Mid-task check-ins that signal the pre-task conversation was genuine engagement, not procedural compliance. Also functions as a dynamic risk assessment tool as conditions evolve during the task.

Hierarchy of controls	Eliminate → Substitute → Isolate → Engineer → Administer → PPE. Controls higher in the hierarchy depend less on human behaviour under pressure and are therefore more reliable. PPE is the least reliable control.
Human error	An unintended action producing an unintended outcome. The person did not intend to create risk or harm. Response: console, learn, fix the system. Applying discipline to human error suppresses reporting and prevents system-level learning. (David Marx, Just Culture)
ICAM	Incident Cause Analysis Method. Traces from immediate event → individual factors → task and environmental conditions → organisational factors. Distinguishes active failures (sharp end) from latent conditions (systemic). Designed to identify what needs to change, not who to blame.
Just Culture	David Marx's framework for distinguishing human error, at-risk behaviour, and recklessness — and applying proportionate responses to each. Not a softer accountability standard — a more accurate one.
Motivational interviewing	A facilitation technique that helps people surface their own reasons for behaviour change, rather than accepting externally imposed instruction. Applied in safety contexts to convert instruction-based compliance into durable internally motivated safe behaviour.
Near-miss	An event that did not result in harm but reveals the current state of safety barriers. The most valuable leading indicator of incident risk. Near-miss under-reporting is a sign of barrier degradation and low psychological safety.
Normalisation of deviance	The gradual process by which deviations from safe practice become accepted as normal. Named by Diane Vaughan in her analysis of the Challenger disaster. The boundary between acceptable and unacceptable shifts incrementally, with no single visible decision point.
Pre-task conversation	A structured two-way exchange before a task. Four components: (1) what are we doing and why; (2) what could go wrong; (3) what are we doing about it; (4) what do you do if something changes. The supervisor listens as much as talks. After it: do you know more than before?
Psychological safety	Amy Edmondson: the belief that you will not be punished for speaking up, admitting errors, or asking questions. The strongest predictor of team safety performance. Created or destroyed through supervisor behaviour — not safety policies, talks, or posters.
Reasonably practicable	WHS Act s18: what is reasonably able to be done, having regard to likelihood of harm, degree of harm, what was known or ought to have been known, availability of controls, and cost (only if grossly disproportionate to the risk).
Recognition-primed decision making (RPD)	How experienced operators actually make decisions: pattern-match to known situations, form a course of action, mentally simulate it, commit or revise. Fast and usually right. Risk: when the pattern no longer fits the situation. (Gary Klein)
Reckless behaviour	A behaviour where the person consciously disregarded a substantial

	and known risk. Requires evidence of conscious disregard — not poor judgment, not unrecognised risk. Response: discipline is appropriate. The bar is high. (David Marx, Just Culture)
Safety-II	Erik Hollnagel's framework: safety is not just the absence of incidents but the presence of adaptive capacity — the ability of workers and supervisors to maintain performance under variable conditions. Study what makes work succeed, not just what makes it fail.
Swiss Cheese model	James Reason: each safety barrier has holes (weaknesses). Normal operation succeeds because holes rarely align. Incidents occur when holes align across multiple barriers simultaneously, often because several barriers have been partially degraded.
The supervisory gap	The space between work-as-imagined (how procedures describe work) and work-as-done (how work actually happens). Supervisors live here. The skill is managing the gap deliberately and knowing when to close it versus when to escalate.
Warning signals	Six observable indicators of system drift: rising near-miss frequency; shortcuts becoming standard; growing PPE reliance; communication breakdown; fatigue accumulation; normalised time pressure. Three or more present simultaneously: escalation situation.
Work-as-done	What workers actually do to get the job done safely and efficiently given real conditions. Includes the adaptations that make work possible in situations procedures did not fully anticipate.
Work-as-imagined	How managers and procedure-writers believe work is carried out. Accurate for typical conditions; incomplete for edge cases. The gap between work-as-imagined and work-as-done is the supervisor's primary operating environment.

Assessment Summary

Module	Title	Questions	Pass Mark
01	The Reality of Safety at the Front Line	5	4/5 (80%)
02	What Reasonably Practicable Actually Means	5	4/5 (80%)
03	Decision Making Under Pressure	5	4/5 (80%)
04	The Human Side of Supervision	5	4/5 (80%)
05	Conversations That Change Behaviour	5	4/5 (80%)
06	When Things Start Going Wrong	5	4/5 (80%)
07	Balancing Accountability and Fairness	5	4/5 (80%)
08	Applying It All — Integration Assessment	10	8/10 (80%)

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