CRITICAL CONTROL MANAGEMENT SERIES

CCM-01 · Critical Control Management Awareness

Product Overview

Audience: All workers · Duration: 45–60 minutes

Version 1.0 · 8 November 2026

For every worker on a site with fatal risks: what a critical control is, how to check it is there, and what to do when it is not.

Most fatal incidents happen when one of a small number of controls was missing or did not work: an isolation not proved dead, an exclusion zone not kept, a seatbelt not worn, a guard taken off. This session gives every worker the language and the habits to notice that before the job starts. Participants learn what makes a risk critical, what a critical control is and how it differs from the other controls around it, how to read a simple bowtie, how to check the critical controls for their task, and why a missing critical control means the job stops.

Learning outcomes

- Explain what makes a risk critical: its worst credible outcome is a fatality, serious injury or catastrophic event
- Recognise the critical risks in their own work
- Explain what a critical control is, and how it differs from other controls
- Read a simple bowtie: the event, what causes it, and what limits the consequences
- Check the critical controls for their task before starting, using a critical control checklist
- Stop work when a critical control is missing or not working
- Report a critical control failure or near miss through the right channel

Session outline

Part	Covers
1. Critical risks	What makes a risk critical; fatal and catastrophic events in operational work; when a fatal risk stops feeling dangerous
2. Critical controls	What a critical control is: first, is it a control, then is it critical; critical controls and the other controls around them; a simple bowtie, read left to right
3. Checking the control	Is it there and working; critical control checklists and pre-start checks; a worked example: an electrical isolation; what ‘not working’ looks like; pass, non-conformance and fail
Activities	Find the critical control: six tasks from mining, construction, manufacturing, local government, transport and utilities. Missing or not working: six scenes rated pass, non-conformance or fail. My workplace: the critical risks, checklists and reporting route in the participant’s own work
4. Your part	Duties of employers and workers under WHS and OHS laws; stopping work: when, how and what happens next; reporting a failure or near miss, and consultation through your Health and Safety Representative; knowledge check

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SAMPLE · CCM-01 Critical Control Management Awareness v1.0 · The full package contains the complete materials.

What is in the package

Folder	Contents
01_START_HERE	Read Me First, Product Overview, Permitted Use Terms, Version Information
02_TRAINING_PRESENTATION	Training Presentation (.pptx with speaker notes, and PDF)
03_FACILITATOR_GUIDE	Facilitator Guide (.docx and PDF), Session Plan
04_PARTICIPANT_RESOURCES	Participant Workbook (.docx and PDF), Handouts (PDF)
05_ACTIVITIES_AND_ASSESSMENTS	Practical Activities and Sample Critical Control Checklists, Knowledge Assessment, Assessment Answers (PDF)
07_TRAINING_ADMINISTRATION	Attendance Register (.xlsx), Completion Certificate Template, Training Evaluation

Document control

Item	Detail
Product	CCM-01 Critical Control Management Awareness
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CRITICAL CONTROL MANAGEMENT SERIES

Critical Control Management Awareness

Know the few controls that stand between you and a fatality, check them before you start, and stop when one is missing

[Insert organisation name] · [Insert date]

01

SAMPLE · CCM-01 Critical Control Management Awareness v1.0 · The full package contains the complete materials.

What this session is, and is not

This session is

- ✔ About the risks in your work that could kill
- ✔ About the few controls that must work, every time
- ✔ About checking them before you start
- ✔ About your right to stop, and how to speak up

This session is not

- ✕ Your site induction: site rules still belong there
- ✕ A list of every control on site
- ✕ An audit, or a lecture on the law
- ✕ About finding someone to blame

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Today

1

Critical risks

what makes a risk critical, and when it stops feeling dangerous

2

Critical controls

what a critical control is, and a simple bowtie

3

Checking the control

checklists, an electrical isolation, and what ‘not working’ looks like

4

Your part

stopping work, reporting, and having your say

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What makes a risk critical

> “A critical risk is one whose worst credible outcome is a fatality, serious injury or catastrophic event.”

- Worst credible: what could realistically happen on a bad day, not the wildest outcome you can imagine
- It does not have to be likely. A rare event that kills is still a critical risk
- Most sites have a short list: falls, mobile plant, energy, lifting, confined spaces

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Fatal and catastrophic events in operational work

Industry	The work	The unwanted event
Mining	Isolating a conveyor drive for maintenance	Caught in moving machinery, or hit by stored energy
Construction	Working on a roof or an open floor edge	Fall from height
Manufacturing	Forklifts and people working in the same warehouse	Pedestrian struck by a forklift
Local government	Roadside works on a high-speed road	Worker struck by passing traffic
Transport	Coupling a trailer in the yard	Driver crushed when a trailer rolls away
Utilities	Switching or working on electrical equipment	Electric shock or arc flash

The same short list of events kills people at work, year after year.

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CRITICAL CONTROL MANAGEMENT SERIES

CCM-01 · Critical Control Management Awareness

Participant Workbook

Duration: 45–60 minutes

Name: _____

Version 1.0 · 8 November 2026

How to use this workbook

This workbook goes with the session. Make notes in it, use it for the activities, and keep it. The ‘My workplace’ page and the sample checklists near the end are the most useful pages to keep.

By the end of the session you will be able to:

- Explain what makes a risk critical: its worst credible outcome is a fatality, serious injury or catastrophic event
- Recognise the critical risks in their own work
- Explain what a critical control is, and how it differs from other controls
- Read a simple bowtie: the event, what causes it, and what limits the consequences
- Check the critical controls for their task before starting, using a critical control checklist
- Stop work when a critical control is missing or not working
- Report a critical control failure or near miss through the right channel

Part 1. Critical risks

Key ideas

Term	What it means
Hazard	Anything with the potential to cause harm.
Control	An act, object, or technical system that actively prevents or mitigates the risk of an unwanted event.
Critical risk	One whose worst credible outcome is a fatality, serious injury or catastrophic event.
Critical control	A control that is crucial to preventing a critical risk event or limiting its consequences, so that its absence or failure would significantly increase the risk despite other controls being in place.
Preventive control	A control that aims to stop the hazard from becoming an incident.
Mitigating control	Something that minimises harm once the hazard has been triggered.
Unwanted event	The point where control is lost: the specific event at the centre of the bowtie, such as a fall from a roof edge or contact with live electricity.

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Term	What it means
Bowtie	A visual risk tool. It shows you how an unwanted event can happen and, if it does happen, how it can escalate to its maximum potential consequence.
Pre-start check	A check, before a task starts, by the people doing it, that the critical controls for that task are there and working.
High potential incident	An incident, or a failed critical control found with nobody hurt, that could realistically have caused a fatality or serious injury.

Fatal and catastrophic events in operational work

Industry	The work	The unwanted event
Mining	Isolating a conveyor drive for maintenance	Caught in moving machinery, or hit by stored energy
Construction	Working on a roof or an open floor edge	Fall from height
Manufacturing	Forklifts and people working in the same warehouse	Pedestrian struck by a forklift
Local government	Roadside works on a high-speed road	Worker struck by passing traffic
Transport	Coupling a trailer in the yard	Driver crushed when a trailer rolls away
Utilities	Switching or working on electrical equipment	Electric shock or arc flash

When a fatal risk stops feeling dangerous

What it sounds like	What is really happening
“We’ve done it a thousand times”	Each time nothing happens, the risk feels smaller. It has not changed.
“It’s only for a minute”	The shortcut becomes the normal way
“Nobody’s ever been hurt doing it”	Controls wear down and nobody notices
“The checklist is just a formality”	The check becomes a tick from memory

Risk doesn't disappear when it's quiet. It hides.

Which job in your work used to feel dangerous and now feels routine?

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Activity 1. Find the critical control

Your facilitator will give your group a task. Answer the three questions. All tasks are composites, not real people or workplaces.

Task A. Mining: Into the pit

Jarrah is a service crew member at an open-cut mine. He has to drive a light vehicle down the main haul road to take a hydraulic hose to an excavator. Haul trucks are running. The mine's rules for the haul road: call up on the haul road radio channel and wait for the truck operators to acknowledge before entering; keep at least 50 metres from a haul truck and never pass one without radio clearance. The trucks have a proximity detection system that alarms in the cab when a light vehicle is close. Jarrah's light vehicle has a flashing beacon and a flag on a whip, and he wears his seatbelt. He did the haul road module at his induction, and there is a laminated traffic plan in the glovebox.

1. What is the critical risk? Name the unwanted event, and how bad it could be.

2. Which of the controls in the task are critical? Is each one preventive or mitigating? Which are not controls at all?

3. What would you check before starting, with your own eyes and hands?

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CRITICAL CONTROL MANAGEMENT SERIES

CCM-02 · Critical Control Management Leadership

Product Overview

Audience: Supervisors, team leaders and managers · Duration: 3–4 hours

Version 1.0 · 8 November 2026

For the supervisors and managers who verify critical controls in the field and act when one fails.

Critical controls fail at the workface, on an ordinary day, under ordinary pressure: a shortcut on an isolation, an exclusion zone that slowly shrinks, a gas test done once and assumed to hold all shift. Supervisors are best placed to see that happening, and are the first who must act on it. Leaders learn how critical controls are chosen and what their performance standards require, how to carry out a field verification that tests whether a control is working rather than whether a form is filled in, how to respond when a control is missing or has failed, and how to report what they find so that it is acted on. Realistic field scenarios from mining, construction, manufacturing, local government, transport and utilities run through the whole session.

Learning outcomes

- Describe the WHS or OHS duties that apply to their role, and how they differ from an officer's
- Explain how critical risks and critical controls are identified using bowtie analysis
- Read a critical control performance standard and say what 'working' means for that control
- Carry out a field verification that tests the control in use, not just the paperwork
- Tell a critical control verification from an inspection or an audit
- Recognise how critical controls erode over time, and the conditions that speed it up
- Respond to a missing or failed critical control: stop, make safe, report, fix
- Talk with a crew about critical controls in a way that brings problems forward
- Escalate a control that cannot be restored, in writing, with facts and options
- Record verification results honestly, including the uncomfortable ones
- Use verification results to decide where to look next

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Session outline

Part	Covers
1. Your role	WHS and OHS duties, and how officers differ; the supervisor's place in critical control management; critical risks, critical controls and the bowtie; work as imagined and work as done
2. Performance standards	What a critical control performance standard sets out; objective, performance requirements and failure criteria; reading a standard for what 'working' means; erosion factors and the conditions that speed them up; Activity 1, read the standard
3. Field verification	Checks, inspections, audits and verification; what a verification proves; planning a field verification; observe, ask, test; asking without turning it into an audit; recording what you found, not what you hoped; pass, non-conformance and fail; Activity 2, observe, ask, test
4. When a control fails	Stop, make safe, report, fix; a failed critical control as a high potential incident; the first conversation with the crew; isolated failure or system problem; the half-page escalation; reporting so it is acted on; Activity 3, four field scenarios
5. Putting it into practice	The verification schedule and Activity 4; using results to decide where to look next; start with two; the critical control conversation card; knowledge check

What is in the package

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02_TRAINING_PRESENTATION	Training Presentation (.pptx with speaker notes, and PDF)
03_FACILITATOR_GUIDE	Facilitator Guide (.docx and PDF), Session Plan
04_PARTICIPANT_RESOURCES	Participant Workbook (.docx and PDF), Handouts (PDF)
05_ACTIVITIES_AND_ASSESSMENTS	Field Verification Scenarios, Performance Standard Reading Exercise, Control Failure Response Worksheet, Knowledge Assessment, Practical Assessment, Assessment Answers (PDF)
06_WORKPLACE_TOOLS	Field Verification Checklist Template, Control Failure Response Worksheet, Leader Tools (all editable)
07_TRAINING_ADMINISTRATION	Training Records (.xlsx), Completion Certificate Template, Training Evaluation

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CRITICAL CONTROL MANAGEMENT SERIES

Critical Control Management Leadership

Verify critical controls in the field, act when one fails, and report what you find so it is acted on

[Insert organisation name] · [Insert date]

02

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What this session is, and is not

This session is

- ✔ About the few controls that stand between your crew and a fatality
- ✔ About proving they work, in the field
- ✔ About what to do when one fails
- ✔ About reporting it so it is acted on

This session is not

- ✕ Training to build bowties or write standards
- ✕ An audit or inspection course
- ✕ A legal course
- ✕ About finding someone to blame

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Today

Module	What it covers	Time
1. Your role	Duties, your place in critical control management, critical controls and the bowtie, the gap	30 min
2. Performance standards	What a standard sets out, what ‘working’ means, erosion; Activity 1	45 min
Break		15 min
3. Field verification	Verification versus inspection and audit, planning, observe, ask, test, recording; Activity 2	40 min
4. When a control fails	Stop, make safe, report, fix; the crew; isolated or system; escalation; Activity 3	45 min
5. Putting it into practice	The verification schedule, start with two, the conversation card; Activity 4; knowledge check	45 min

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MODULE 1

Your role

Your duties, your place in critical control management, and the controls that matter most

1

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Your duties

The organisation must

- Eliminate risks, or where that is not reasonably practicable, minimise them so far as reasonably practicable
- Provide the controls, maintain them, and have a way of checking that they work
- Consult workers, and consult and cooperate with other duty holders on a shared site

You, as a supervisor

- Usually carry out that duty day to day: you plan the work, check the controls and decide whether the job goes ahead
- Have your own duty as a worker: reasonable care for yourself and for others affected by what you do or decide
- Are usually not an officer. Officers have extra duties of their own

The law that applies here: [Insert the WHS or OHS Act and regulations for this workplace]

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CRITICAL CONTROL MANAGEMENT SERIES

CCM-02 · Critical Control Management Leadership

Participant Workbook

Duration: 3–4 hours

Name: _____

Area or crew I supervise: _____

Version 1.0 · 8 November 2026

How to use this workbook

This workbook goes with the session and is yours to keep. It holds every activity and every tool. Work on a real area or crew you supervise: Activity 4 uses it. The tools are also supplied as editable files, to keep using after today.

By the end of the session you will be able to:

- Describe the WHS or OHS duties that apply to their role, and how they differ from an officer's
- Explain how critical risks and critical controls are identified using bowtie analysis
- Read a critical control performance standard and say what 'working' means for that control
- Carry out a field verification that tests the control in use, not just the paperwork
- Tell a critical control verification from an inspection or an audit
- Recognise how critical controls erode over time, and the conditions that speed it up
- Respond to a missing or failed critical control: stop, make safe, report, fix
- Talk with a crew about critical controls in a way that brings problems forward
- Escalate a control that cannot be restored, in writing, with facts and options
- Record verification results honestly, including the uncomfortable ones
- Use verification results to decide where to look next

Module 1. Your role

Your duties

The organisation must	You, as a supervisor
• Eliminate risks, or where that is not reasonably practicable, minimise them so far as reasonably practicable • Provide the controls, maintain them, and have a way of checking that they work • Consult workers, and consult and cooperate with other duty holders on a shared site	• Usually carry out that duty day to day: you plan the work, check the controls and decide whether the job goes ahead • Have your own duty as a worker: reasonable care for yourself and for others affected by what you do or decide • Are usually not an officer. Officers have extra duties of their own

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The law that applies here: _____

How officers differ

	Harmonised WHS laws	Victoria (OHS Act)
Who holds the main duty	The person conducting a business or undertaking (the organisation)	The employer
A supervisor's own duty	As a worker: reasonable care, and cooperation with the organisation	As an employee: reasonable care for others affected by their acts or omissions
Officers	A positive due diligence duty to make sure the organisation meets its duty	No positive due diligence duty, but officers can be liable for the company's offence
Who is an officer	People who make, or take part in making, decisions affecting the whole or a substantial part of the business	The same Corporations Act definition, applied to the employer

Your place in critical control management

Critical risk management identifies the critical risks and maps them with bowties. Critical control management makes sure the controls on those bowties hold.

	Who	What it does
Find the risks	Critical risk management	Identifies the critical risks and maps them with bowties. Usually led by WHS and operations, with workers consulted.
Keep the controls	Critical control management	Performance standards, control owners and verification make sure the controls on those bowties hold.
Verify and act	You, at the workface	Verify critical controls in the field, act when one fails, and report what you find so it is acted on. Often a control owner too.

Key ideas

Term	What it means
Hazard	Anything with the potential to cause harm.
Control	An act, object, or technical system that actively prevents or mitigates the risk of an unwanted event.
Preventive control	A control that aims to stop the hazard from becoming an incident.
Mitigating control	Something that minimises harm once the hazard has been triggered.
Critical risk	One whose worst credible outcome is a fatality, serious injury or catastrophic event.
Critical control	A control that is crucial to preventing a critical risk event or limiting its consequences, so that its absence or failure would significantly increase the risk despite other controls being in place.
Unwanted event	The point where control is lost: the specific event at the centre of the bowtie, such as a fall from a roof edge or contact with live electricity.

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Activity 1. Read the standard

Aditi is the operations manager at a freight distribution centre. Her shift supervisors are about to start verifying the separation of forklifts and people on foot, one of the critical controls on the site's bowtie for mobile plant and pedestrian interaction (slide 10). This is the performance standard they will verify against. All names and details are composites. In small groups, answer questions 1 to 4. Then, on your own, write the field verification checklist (question 5).

Critical control performance standard	
Control title	Separation of forklifts and people on foot
Site	A freight distribution centre: the warehouse floor, the dock and the yard walkway. A composite.
Critical risk	Mobile plant and pedestrian interaction. Unwanted event: a forklift strikes a person on foot.
Objective	To keep people on foot physically apart from operating forklifts, so that a forklift cannot strike a person on the warehouse floor or the dock.
Scope	The warehouse floor, the dock and the yard walkway, on every shift, whenever a forklift is operating. Applies to employees, labour hire, contractors, visiting truck drivers and visitors.
Performance requirements	• R1 Fixed barriers separate every marked walkway from forklift aisles. The barriers are continuous, with no gaps except at controlled crossings. • R2 People on foot cross forklift aisles only at controlled crossings. Each crossing has a gate or light that stops forklifts while the crossing is in use. • R3 Visiting truck drivers wait in the marked driver safety zone while their truck is loaded or unloaded. • R4 Forklift operators travel at a safe speed. • R5 Pedestrians are aware of forklifts at all times. • R6 When racking, the layout or the traffic flow changes, the separation is reviewed and the barriers are moved before work starts in the new layout. • R7 A damaged barrier is reported the same shift and repaired within 24 hours. Until then, the gap is closed with a temporary barrier, not tape.
Failure modes (erosion factors)	• Barriers hit and bent, or removed for a delivery and not put back • A crossing gate propped open, or a crossing light not working • Shortcuts across an aisle where the walkway adds distance • Racking or a new bay installed without the barriers being moved • Drivers leaving the safety zone to watch their load, especially when loading runs late • New and labour hire workers shown the shortcut, not the walkway
Accountabilities	Operations manager: risk owner for mobile plant and pedestrian interaction. Shift supervisors: control owners on their shift, and verify weekly. Maintenance coordinator: barrier and crossing repairs. Every worker: use the walkways and crossings, and report damage.
Training and competencies	Site induction for everyone covers the walkways, crossings and driver safety zone. Forklift operators hold a high risk work licence for forklifts and have had the site traffic briefing. Supervisors who verify have been trained in critical control verification.
Verification methods	Shift supervisor: a field verification each week on their shift, in a different area each week, using the field verification checklist. Operations manager: one verification a month on a night or weekend shift. Results recorded in the verification log.
Failure criteria and corrective actions	Fail: a gap in the barriers where forklifts are running, a crossing not working while people use it, or people on foot working in a forklift aisle. Stop forklift movement in that area, make it safe, and report it as a high potential incident. Non-conformance: in place but not effective, such as people walking around the end of a barrier or a temporary barrier left beyond 24 hours. Put a temporary control in place, such as a spotter or a temporary barrier, before work continues, and log a corrective action.

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CRITICAL CONTROL MANAGEMENT SERIES

CCM-03 · Critical Control Management Practitioner

Product Overview

Audience: Whoever is responsible for WHS or risk in the business · Duration: One day

Version 1.0 · 8 November 2026

A full day on building critical control management: from the bowtie to verification that tells the truth.

This is the technical package: identifying critical risks, building bowties, selecting critical controls, writing performance standards, assigning critical control owners, designing a verification program, and responding to and learning from control failure. It is written for the person who will build and run the business's critical control management, whether that is a WHS or risk adviser, an operations manager or the owner.

Participants work through one critical risk from start to finish, using a full case pack and the same templates they will use afterwards. The emphasis is on choosing the few controls that matter most, defining what 'working' means for each in terms that can be checked in the field, and verification that finds the weak points before an incident does.

Learning outcomes

- Explain the WHS or OHS duties that apply to high-consequence risks in their jurisdiction, including where Victoria differs and where mining safety laws add requirements
- Identify and prioritise critical risks by their worst credible consequence
- Facilitate a bowtie analysis: the unwanted event, its causes, its consequences, and the preventive and mitigating controls
- Select critical controls against clear criteria, and keep the list short
- Tell a control from an activity, a procedure or a support arrangement
- Write critical control performance standards with an objective, performance requirements, erosion factors and failure criteria
- Assign critical control owners and set out what each is accountable for
- Design a verification program that tests existence, implementation and effectiveness, at the right frequency
- Analyse verification results and tell isolated failures from systemic problems
- Respond to and investigate a critical control failure
- Report critical control performance upwards in a way that supports decisions

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Session outline

Part	Covers
1. Foundations	Why fatalities persist under mature safety systems; duties by jurisdiction, including Victoria and mining safety laws; critical risk management and critical control management; understanding the work: four sources
2. Bowtie and selection	Critical risks and the worst credible consequence; building a bowtie; selecting critical controls: the criteria; controls, activities and supports; Activities 1, 2 and 3
3. Standards and ownership	Objective, performance requirements and failure criteria; erosion factors and failure modes; critical control owners and their accountabilities; the critical control register; Activity 4
4. Verification and response	Existence, implementation and effectiveness; designing the verification program; reading the results: isolated or systemic; control failure response, investigation and reporting; Activity 5
Case and assessment	Yarrabee Ridge Quarry and Concrete, a quarry and concrete batching operation, through five activities; worked examples from local government and utilities; knowledge check; practical assessment

What is in the package

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04_PARTICIPANT_RESOURCES	Participant Workbook (.docx and PDF), Handouts (PDF)
05_ACTIVITIES_AND_ASSESSMENTS	Case Pack, Worked Examples (PDF), Knowledge Assessment, Practical Assessment, Assessment Answers (PDF)
06_WORKPLACE_TOOLS	Critical Control Register (.xlsx), Bowtie Analysis Template, Critical Control Selection Worksheet, Critical Control Performance Standard Template, Verification Plan and Field Verification Checklist, Control Failure Response and Investigation Record
07_TRAINING_ADMINISTRATION	Training Records (.xlsx), Completion Certificate Template, Training Evaluation

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Document control

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CRITICAL CONTROL MANAGEMENT SERIES

Critical Control Management Practitioner

From the bowtie to verification that tells the truth

[Insert organisation name] · [Insert date]

03

SAMPLE · CCM-03 Critical Control Management Practitioner v1.0 · The full package contains the complete materials.

What today is, and is not

Today is

- ✔ The few controls that stop people being killed
- ✔ Built on proof: verified, not assumed
- ✔ One critical risk, worked end to end
- ✔ A method you can use on Monday

Today is not

- ✕ A qualification or a licence
- ✕ Nationally recognised training
- ✕ A course in every control on site
- ✕ A way to produce more paperwork

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Today

Session	What it covers	Time
1. Foundations	Why fatalities persist; duties; CRM and CCM; understanding the work	40 min
Morning tea		15 min
2. Bowtie and selection	Critical risks; building a bowtie; selecting critical controls; Activities 1, 2 and 3	150 min
Lunch		30 min
3. Standards and ownership	Performance standards; erosion factors; owners; the register; Activity 4	70 min
Afternoon tea		15 min
4. Verification and response	Verification programs; reading results; failure response; reporting; Activity 5	80 min
Close	Knowledge check; next steps	25 min

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You will leave with

- Critical risks ranked by their worst credible consequence
- A full bowtie for one critical risk
- A short list of critical controls, with the reasons
- A performance standard someone can verify in the field
- A verification plan, and a way to read the results
- The same templates, editable, for your own workplace

SAMPLE · CCM-03 Critical Control Management Practitioner v1.0 · The full package contains the complete materials.

SESSION 1

Foundations

Why people are still killed, what the law asks, and where critical control management fits

1

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CRITICAL CONTROL MANAGEMENT SERIES

CCM-03 · Critical Control Management Practitioner

Participant Workbook

Duration: One day

Name: _____

Version 1.0 · 8 November 2026

How to use this workbook

This workbook holds the reference material and every activity worksheet for the day. Activities 1 to 5 work through one critical risk at Yarrabee Ridge Quarry and Concrete, described in the case pack at the back of this workbook. Your completed worksheets for Activities 1 to 5 form the practical assessment, so keep them together and make sure your name is on the cover.

By the end of the day you will be able to:

- Explain the WHS or OHS duties that apply to high-consequence risks in their jurisdiction, including where Victoria differs and where mining safety laws add requirements
- Identify and prioritise critical risks by their worst credible consequence
- Facilitate a bowtie analysis: the unwanted event, its causes, its consequences, and the preventive and mitigating controls
- Select critical controls against clear criteria, and keep the list short
- Tell a control from an activity, a procedure or a support arrangement
- Write critical control performance standards with an objective, performance requirements, erosion factors and failure criteria
- Assign critical control owners and set out what each is accountable for
- Design a verification program that tests existence, implementation and effectiveness, at the right frequency
- Analyse verification results and tell isolated failures from systemic problems
- Respond to and investigate a critical control failure
- Report critical control performance upwards in a way that supports decisions

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Session 1. Foundations

Key ideas

Term	What it means
Hazard	Anything with the potential to cause harm.
Control	An act, object, or technical system that actively prevents or mitigates the risk of an unwanted event.
Critical risk	One whose worst credible outcome is a fatality, serious injury or catastrophic event.
Critical control	A control that is crucial to preventing a critical risk event or limiting its consequences, so that its absence or failure would significantly increase the risk despite other controls being in place.
Critical risk management	A structured approach to identifying, assessing and controlling the highest-consequence risks in a workplace.
Critical control management	A systematic approach to identifying, implementing and verifying the controls that prevent or mitigate high-consequence risks.

Why fatalities persist under mature safety systems

What the system measures	What kills people
Injury rates: strains, sprains and cuts	The same few events, year after year: plant, height, energy, lifting, confined spaces
Procedures written, training done, forms filled in	One control missing or not working on the day
Inspections completed on time	A control everyone assumed was working, and nobody had checked
A long list of controls on every risk	A failed control found earlier, logged and never escalated

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Activity 2. Build the bowtie

The critical risk ranked first in Activity 1. Write the hazard and the unwanted event in the centre. Map the causes and consequences from the case pack, and place the controls the business has now against each. Actual controls, not documents. Mark the gaps and add proposed controls.

Causes	Preventive controls	Unwanted event	Mitigating controls	Consequences
		Hazard:		
		Unwanted event:		

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CRITICAL CONTROL MANAGEMENT SERIES

CCM-04 · Executive Critical Control Governance

Product Overview

Audience: Business owners, directors and senior managers · Duration: 90–120 minutes

Version 1.0 · 8 November 2026

For the owners and directors who need to know, not hope, that the controls preventing a fatality are working.

A business with fatal risks can report no lost time injuries for years while the controls that stand between its people and a fatality slowly erode. Owners, directors and senior managers decide whether critical control management is resourced and taken seriously, and are the ones asked afterwards what they knew. This briefing covers what critical control management is and is not, what the board should receive about critical controls, why injury rates say little about fatal risk, how to read verification results, and how to respond to a significant control failure. Officer duties are covered for each jurisdiction, including Victoria, where the law takes a different form. Executives compare a typical green safety report with the same company reported properly, and follow a production increase through four stages, from the approval to a serious control failure.

Learning outcomes

- Describe the governance responsibilities for critical risks, and how officer duties differ between jurisdictions
- Explain why injury frequency rates do not measure fatal risk
- Interpret critical control verification reporting critically, and recognise results that are too green to be true
- Tell an isolated control failure from a systemic one, and know which needs the board
- Recognise and respond to a significant critical control failure
- Resource critical control management deliberately, knowing what doing it properly takes
- Set clear accountability for critical risks and controls, and ask 'how do you know?'

Session outline

Part	Covers
1. The green dashboard	What boards typically receive, and why injury rates say nothing about fatal risk
2. What governance requires	Critical control management, governance and assurance; three things the board must know about critical risks; officer duties by jurisdiction, including Victoria; lessons from inquiries into workplace fatalities; what critical control management is not, and what doing it properly takes; accountability for each critical risk and control
3. Reporting	What the board should receive; Activity 1, read the report; reading verification results that tell you something; leading and lagging indicators for critical risk
4. Assurance	How a control stays green on paper; isolated or systemic?; responding to a significant critical control failure; is your assurance real?; Activity 2, a production push, stage by stage
Close	Activity 3, the executive question set applied to your own critical risk reporting;

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Part	Covers
	knowledge check; commitments

What is in the package

Folder	Contents
01_START_HERE	Read Me First, Product Overview, Permitted Use Terms, Version Information
02_TRAINING_PRESENTATION	Training Presentation: the executive briefing (.pptx with speaker notes, and PDF)
03_FACILITATOR_GUIDE	Facilitator Guide (.docx and PDF), Session Plan
04_PARTICIPANT_RESOURCES	Participant Workbook: the executive briefing workbook (.docx and PDF)
05_ACTIVITIES_AND_ASSESSMENTS	Critical Control Reporting Example (PDF), Governance Scenario, Knowledge Assessment, Assessment Answers (PDF)
06_WORKPLACE_TOOLS	Assurance Checklist with the executive question set, Board Critical Risk Report Template (editable)
07_TRAINING_ADMINISTRATION	Attendance Register (.xlsx), Completion Certificate Template, Training Evaluation

Document control

Item	Detail
Product	CCM-04 Executive Critical Control Governance
Document	Product Overview
Version	1.0
Status	Released
Date	8 November 2026
Publisher	Orana Skills Centre
Copyright	© 2026 Orana Skills Centre. All rights reserved.
Use	Licensed for internal use by the purchasing organisation under the Permitted Use conditions in folder 01_START_HERE.

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CRITICAL CONTROL MANAGEMENT SERIES

Executive Critical Control Governance

Know, not hope, that the controls preventing a fatality are working

[Insert organisation name] · [Insert date]

04

SAMPLE · CCM-04 Executive Critical Control Governance v1.0 · The full package contains the complete materials.

What this briefing is, and is not

This briefing is

- ✔ About the few controls that stand between your people and a fatality
- ✔ About what the board should receive, and what to ask
- ✔ About the decisions only owners and executives make
- ✔ Practical: your own reporting, tested

This briefing is not

- ✕ A course in building bowties or verifying controls
- ✕ A safety statistics review
- ✕ Legal advice
- ✕ A replacement for your WHS or risk advisers

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Today

Part	What it covers	Time
1. The green dashboard	What boards typically receive; why injury rates say nothing about fatal risk	10 min
2. What governance requires	Three things to know; officer duties; lessons from inquiries; what CCM is not; accountability	22 min
3. Reporting	What the board should receive; Activity 1, read the report; verification results; indicators	24 min
4. Assurance	How a control stays green; isolated or systemic; responding to a failure; Activity 2	25 min
Close	Activity 3, the question set; knowledge check; commitments	23 min

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PART 1

The green dashboard

What boards typically receive

1

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A page from a board paper

“Safety report, October (harvest month 1). LTIFR 0.0. TRIFR 2.1, down from 3.4. 412 days LTI free. Critical control verifications: 86 scheduled, 86 completed (100%). Pass rate 98%: 84 pass, 2 non-conformance, 0 fail. High potential incidents: 0. All five critical risks green. Receivals 486,000 tonnes, 12% ahead of plan. Overall status: Green.”

Every figure is true. The business is a regional grain storage and handling company: a composite, used throughout the briefing.

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CRITICAL CONTROL MANAGEMENT SERIES

CCM-04 · Executive Critical Control Governance

Executive Briefing Workbook

Duration: 90–120 minutes

Name: _____

Version 1.0 · 8 November 2026

How to use this workbook

A short companion to the briefing. Make notes, use it for the three activities, and keep the executive question set at the back. All cases and reports are composites.

By the end of the briefing you will be able to:

- Describe the governance responsibilities for critical risks, and how officer duties differ between jurisdictions
- Explain why injury frequency rates do not measure fatal risk
- Interpret critical control verification reporting critically, and recognise results that are too green to be true
- Tell an isolated control failure from a systemic one, and know which needs the board
- Recognise and respond to a significant critical control failure
- Resource critical control management deliberately, knowing what doing it properly takes
- Set clear accountability for critical risks and controls, and ask 'how do you know?'

The company used in the activities

A regional, privately owned grain storage and handling business: a central hub site with concrete silos and a bucket elevator, four country receival sites with steel silos, augers and conveyors, and two temporary bunker sites opened each harvest. About 140 permanent workers, plus seasonal casuals and contract truck drivers. The board is the managing director, two directors from the founding family, a grower director and an independent chair. This is a composite: no real business is described.

Its critical risks	Worst credible outcome
Worker engulfed in grain during silo entry	Fatality
Pedestrian struck by a reversing truck at receival	Fatality
Entanglement in an auger or conveyor	Fatality or amputation
Grain dust explosion in a silo or the bucket elevator	Multiple fatalities
Fall from a silo roof or ladder	Fatality

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Part 1. The green dashboard

Safety report, October (harvest month 1). LTIFR 0.0. TRIFR 2.1, down from 3.4. 412 days LTI free. Critical control verifications: 86 scheduled, 86 completed (100%). Pass rate 98%: 84 pass, 2 non-conformance, 0 fail. High potential incidents: 0. All five critical risks green. Receivals 486,000 tonnes, 12% ahead of plan. Overall status: Green.

The paper says	What it actually tells you
LTIFR 0.0; TRIFR down from 3.4 to 2.1	A count of minor injuries that happened. Nothing about the controls on the risks that could kill
412 days LTI free	Luck as much as control. Nobody has been engulfed yet
86 of 86 verifications completed	Activity, not results. Who checked, how, and what did they find?
98% pass; 0 fail	In the busiest month of the year, with 60 new seasonal workers. Too green to be true?
0 high potential incidents	Is a failed critical control being counted as one?
All five critical risks green	Green against what? Nobody in the room can test it

What the board has not been told:

- Which critical controls the 20% capacity increase depends on, and whether they are holding
- That 71 of the 86 checks were done by the site manager of the site checked, 58 of them in the last three days of the month
- That both non-conformances were found by the one independent verifier
- That the spotters at both bunker sites are also working as grain samplers
- That the night-shift isolation officer role is unfilled at two sites
- That a conveyor guard found off at a bunker site was refitted on the spot and never recorded

Why injury rates say nothing about fatal risk

What an injury rate counts	What it cannot tell you
• Frequent, minor injuries: strains, sprains, cuts • How cases were classified, and the hours worked • Harm that has already happened • Luck, as much as control	• Whether the critical controls on fatal risks are working • How often those controls fail with nobody hurt • Whether a serious event is close • Anything reliable about rare, high-consequence events

A business can report no lost time injuries for years while its critical controls erode.

Part 2. What governance requires

Definitions

Term	Definition
Governance	Who owns what, how decisions are made, and how risk fits into strategy.
Critical risk	One whose worst credible outcome is a fatality, serious injury or catastrophic event.

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Accountability for each critical risk and control

Role	Accountable for	The board asks
Risk owner	Accountable for understanding, managing, and reporting on a particular risk. Usually senior, with visibility over budget, resources and controls.	What is the state of this risk's critical controls, and what do you need?
Control owner	Responsible for the day-to-day implementation, monitoring, and verification of controls designed to mitigate risks.	How do you know your control works today?
Verifier	Checks the control in the field against its performance standard and records the evidence. Independent of the control owner where it matters.	What did you find that we did not want to hear?
Officers and the board	Resource critical control management, receive the results and act on them, and verify for themselves.	How do we know?

Activity 1. Read the report

The same company, in the same month as the green report, reported properly.

Critical risks: monthly report to the board, October

Critical risks and their critical controls

Scenario	Worst credible outcome	Critical controls	Verification this month	Assured?
Worker engulfed in grain during silo entry	Fatality	Outlet and augers isolated and locked out before entry; harness and lifeline tended from above; rescue set-up	18 checks, 18 pass, all by the manager of the site checked. Night isolation officer unfilled at 2 sites	Not assured
Pedestrian struck by a reversing truck at receival	Fatality	Pedestrian exclusion zone at receival; a dedicated spotter for every reversing truck	24 checks, 23 pass, 1 non-conformance. Spotters also sampling grain at both bunker sites	Not assured
Entanglement in an auger or conveyor	Fatality or amputation	Fixed guards on augers and conveyors; isolation before clearing a blockage	20 checks, 20 pass. A conveyor guard found off at a bunker site, refitted, not recorded	Not assured
Grain dust explosion in a silo or the bucket elevator	Multiple fatalities	Hot work control; bucket elevator monitoring and shutdown	12 checks, 11 pass, 1 non-conformance (hot work without a fire watch), found by the independent verifier	Action open
Fall from a silo roof or ladder	Fatality	Roof edge protection; fall arrest on fixed ladders	12 checks, 12 pass, by the independent verifier, with photos and test records	Assured

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CRITICAL CONTROL MANAGEMENT SERIES

CCM-05 · Critical Control Management Implementation Toolkit

Product Overview

For: Businesses with fatal or catastrophic risks, and whoever runs WHS or risk in them

Version 1.0 · 8 November 2026

The editable bowties, registers, standards and verification tools to run critical control management day to day.

Training builds understanding; the toolkit is what people use afterwards. It contains the tools needed to run critical control management: identifying critical risks, building bowties, selecting and documenting critical controls, verifying them in the field and responding when one fails, organised into four stages.

An implementation guide explains how the tools fit together, the order to introduce them in, why to start with one critical risk rather than all of them at once, and how to adapt the tools to your organisation's existing risk framework. It carries one critical risk, mobile plant and pedestrian interaction, through every tool.

With the toolkit in place, your business can

- Identify and prioritise critical risks consistently
- Build bowties and select critical controls against clear criteria
- Document each critical control with a performance standard and a named owner
- Verify critical controls in the field on a planned schedule
- Respond consistently when a critical control is missing or fails
- Report critical control performance, and track corrective actions to completion

What is in the toolkit

Stage	Tools
Identify	I1 Critical risk identification worksheet; I2 Critical risk register (Excel); I3 Bowtie analysis template; I4 Bowtie workshop facilitation guide
Define	D1 Critical control selection worksheet; D2 Critical control register (Excel); D3 Critical control performance standard template; D4 Critical control owner accountabilities
Verify	V1 Verification program planner (Excel); V2 Field verification checklist template; V3 Worker critical control checklist template; V4 Verification results summary
Respond and improve	R1 Control failure response guide; R2 Control failure report and investigation record; R3 Corrective action tracker (Excel); R4 Critical control performance report template; R5 Review triggers
Guide	How the tools fit together; why to start with one critical risk; fitting them to your own risk framework; a twelve-month sequence; tool-by-tool notes; a worked example that carries one critical risk through every tool

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Folders

Folder	Contents
01_START_HERE	Read Me First, Product Overview, Permitted Use Terms, Version Information
02_IMPLEMENTATION_GUIDE	Implementation Guide (.docx and PDF), with the twelve-month sequence and the worked example
03_IDENTIFY	I1 Critical Risk Identification Worksheet, I2 Critical Risk Register (.xlsx), I3 Bowtie Analysis Template, I4 Bowtie Workshop Facilitation Guide
04_DEFINE	D1 Critical Control Selection Worksheet, D2 Critical Control Register (.xlsx), D3 Critical Control Performance Standard Template, D4 Critical Control Owner Accountabilities
05_VERIFY	V1 Verification Program Planner (.xlsx), V2 Field Verification Checklist Template, V3 Worker Critical Control Checklist Template, V4 Verification Results Summary
06_RESPOND_AND_IMPROVE	R1 Control Failure Response Guide, R2 Control Failure Report and Investigation Record, R3 Corrective Action Tracker (.xlsx), R4 Critical Control Performance Report Template, R5 Review Triggers

You will need

- Microsoft Word and Excel, or compatible software
- Someone with authority to introduce the tools into your risk management system

Document control

Item	Detail
Product	CCM-05 Critical Control Management Implementation Toolkit
Document	Product Overview
Version	1.0
Status	Released
Date	8 November 2026
Publisher	Orana Skills Centre
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CRITICAL CONTROL MANAGEMENT SERIES

CCM-05 · Critical Control Management Implementation Toolkit

Implementation Guide

How the seventeen tools fit together, the order to introduce them, why to start with one critical risk, how to fit them to your own risk framework, and one critical risk carried through every tool.

Version 1.0 · 8 November 2026

Contents

1. What this toolkit is
2. The method on one page
3. How the tools fit together
4. Start with one critical risk
5. Fitting the toolkit to your existing risk framework
6. Setting the toolkit up
7. The first twelve months
8. Tool by tool
9. Worked example: mobile plant and pedestrian interaction
10. Common mistakes
11. The law: check it for your jurisdiction
12. Glossary

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1. What this toolkit is

Training builds understanding; the toolkit is what people use afterwards. It contains the tools needed to run critical control management: identifying critical risks, building bowties, selecting and documenting critical controls, verifying them in the field and responding when one fails, organised into four stages.

An implementation guide explains how the tools fit together, the order to introduce them in, why to start with one critical risk rather than all of them at once, and how to adapt the tools to your organisation's existing risk framework. It carries one critical risk, mobile plant and pedestrian interaction, through every tool.

It is written for businesses with fatal or catastrophic risks and for whoever runs WHS or risk in them: often an operations manager, a WHS adviser or a supervisor who does it alongside another job. It is not a training package, a policy or a legal compliance checklist. It is the set of working documents that let a business find its critical risks, select the few controls that must not fail, write down what 'working' means for each, prove they are working, and act the same way every time one is not.

Code	Stage	Tool	Format
I1	Identify	Critical risk identification worksheet	DOCX
I2	Identify	Critical risk register	XLSX
I3	Identify	Bowtie analysis template	DOCX
I4	Identify	Bowtie workshop facilitation guide	DOCX
D1	Define	Critical control selection worksheet	DOCX
D2	Define	Critical control register	XLSX
D3	Define	Critical control performance standard template	DOCX
D4	Define	Critical control owner accountabilities	DOCX
V1	Verify	Verification program planner	XLSX
V2	Verify	Field verification checklist template	DOCX
V3	Verify	Worker critical control checklist template	DOCX
V4	Verify	Verification results summary	DOCX
R1	Respond and improve	Control failure response guide	DOCX
R2	Respond and improve	Control failure report and investigation record	DOCX
R3	Respond and improve	Corrective action tracker	XLSX
R4	Respond and improve	Critical control performance report template	DOCX
R5	Respond and improve	Review triggers	DOCX

With the toolkit in place, a business can:

- Identify and prioritise critical risks consistently
- Build bowties and select critical controls against clear criteria
- Document each critical control with a performance standard and a named owner
- Verify critical controls in the field on a planned schedule
- Respond consistently when a critical control is missing or fails
- Report critical control performance, and track corrective actions to completion

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2. The method on one page

Critical risk management identifies the critical risks and maps them with bowties. Critical control management makes sure the controls on those bowties hold.

Non-negotiables

1. Critical risks are written as specific unwanted events, consequence first, and prioritised.
2. Bowties are built with the people who do the work, and walked in the field before they are trusted.
3. First 'is it a control?', then 'is it critical?'. Documents, forms, training records and monitoring without action are not controls.
4. Critical controls are few. Mitigating controls can be critical, especially when they are the last line of defence.
5. Every critical control has a performance standard and a named owner with the authority, time and resources to keep it working.
6. Verification is proof, not assumption: in the field, on a schedule, rated Pass, Non-conformance or Fail.
7. A failed critical control is a high potential incident, even if nobody was hurt: stop, report, escalate, investigate and tell the business.
8. A corrective action closes only when the control has been verified again.
9. Verification results are reported as a leading indicator, alongside incident data.

Key definitions

Term	Definition
Control	An act, object, or technical system that actively prevents or mitigates the risk of an unwanted event.
Critical risk	One whose worst credible outcome is a fatality, serious injury or catastrophic event.
Critical control	A control that is crucial to preventing a critical risk event or limiting its consequences, so that its absence or failure would significantly increase the risk despite other controls being in place.
Critical control performance standard	A clear and practical set of rules that describe how a critical control must be implemented, maintained and verified.
Critical control verification	The process of regularly checking that critical controls exist, are in place and in good condition, are functioning as designed, are being used properly, and are not being bypassed or failing silently.
Control owner	Responsible for the day-to-day implementation, monitoring, and verification of controls designed to mitigate risks.
Risk owner	Accountable for understanding, managing, and reporting on a particular risk.

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Rating a check or verification

Rating	What it means	Response
Pass	In place and effective	Review against other metrics (hazards, incidents) to ensure quality of pass results.
Non-conformance	In place, not effective	Log an action for corrective measures and establish temporary controls, such as barricading, if necessary.
Fail	Not in place or failed	Immediate actions like job stoppage and incident reporting.

A critical control failure found in a check, even with nobody hurt, is a high potential incident. CCV results are a leading indicator: report them alongside, not instead of, incident data.

What critical control management is not

Not	Why
A long list of generic controls	More controls do not mean more protection. CCM is about the few that matter most.
A safety procedure or policy	Written documents alone are not controls. If no one is checking a control's function, it is not managed.
An audit or inspection program	CCM needs specific verification activities that test the function of each critical control, not broad compliance checks.
A visible leadership program	Leadership visibility is valuable, but it does not replace structured technical verification or clear control ownership.
A compliance activity	Treated as box-ticking, CCM loses its power.
A duplicate of maintenance inspections	Routine maintenance is not critical control verification. CCM is about assurance of control effectiveness, not only the condition of assets.
A lagging indicator	By the time an incident shows up, it is too late. CCM is a leading practice that finds weak points before something goes wrong.

3. How the tools fit together

The tools follow four stages. In practice the business sets up a few things first, then works through the stages for one critical risk at a time, and the last stage loops back to the first.

Stage	What it is for
Identify	Find the critical risks, prioritise them, and map the first one with a bowtie built with the people who do the work
Define	Select the few critical controls against clear criteria, write down what 'working' means for each, and give each a named owner
Verify	Prove the critical controls are working, in the field, on a planned schedule, and give workers a check they do before every task
Respond and improve	Act the same way every time a critical control is missing or fails, fix it and prove the fix, report performance, and review

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Stage	Tools
Set up	R1 the response rules and R3 the action tracker, so a failure has somewhere to go; D4 the owner roles; the organisation settings in the guide
Identify	I1 critical risk identification; I2 critical risk register; I4 workshop guide and I3 bowtie for the first critical risk
Define	D1 selection; D2 critical control register; D3 a performance standard for each; D4 owners named and accepted
Verify	V1 the program; V2 field verification; V3 the worker checklist; V4 the monthly summary
Respond and improve	R1 response; R2 failure report and investigation; R3 corrective actions; R4 performance report; R5 review triggers; back to I3

The tools are linked by reference numbers. A critical risk found in I1 becomes a row in I2 (CR-01) and gets a bowtie (I3). Its critical controls, selected with D1, are rows in D2 (CC-01.1), each with a performance standard (D3) and an owner (D4). Each is verified with V2 on the V1 schedule (VP-01); the result goes in the V1 results log and on D2. A result that is not a Pass goes through R1; a Fail gets an R2 report (R2-03); every action goes in R3 (CA-07) and closes only when the control passes again. V4 and R4 report the results; R5 sends anything that has changed back to the bowtie.

NOTE The Excel tools are separate workbooks, so they do not update each other. Copy the references across as you go, or join them in your own system.

4. Start with one critical risk

The most common way to fail at critical control management is to start everywhere at once.

- A bowtie built properly, with the people who do the work, takes a morning, and its performance standards and verification take weeks more. Doing that for one critical risk is achievable; doing it for ten at once means ten half-finished bowties and no verification.
- The first critical risk teaches the business the method: how to run the workshop, how hard selection is, how long a standard takes, what a real verification finds. The second goes faster and better.
- Verification is where the value is. One critical risk with four verified critical controls protects people; ten bowties on a shelf do not.
- Workers and supervisors judge the program by the first one. If it changes something real on the floor, the next one gets their time.
- Start with the highest priority critical risk in I2. Take it all the way, from bowtie to the first month of verification results, before starting the second.

SAY *We are going to do one critical risk properly before we start the next. By the end of month six it will have verified critical controls, not just a bowtie.*

Expect the first verifications to find failures, although nothing in the workplace has changed. A control that was assumed to work and has never been checked is now being checked. Tell the owners before it happens: every early Fail is a free kick, found before anyone was hurt.

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5. Fitting the toolkit to your existing risk framework

Critical control management sits inside your risk management, not beside it. Keep what works; add what is missing.

Where	What to do
One register, linked	Keep your general risk register. I2 holds only the critical risks; give each the same reference in both, and record in your register that the risk is managed through its bowtie and critical controls.
Your risk matrix	Use your own matrix for everything else. I2 decides 'critical' from the worst credible consequence alone: a fatality, serious injury or catastrophic event. A rare catastrophe stays a critical risk however its likelihood is rated.
Existing bowties	Do not start again. Take each through the I3 validation questions and D1: most old bowties have vague events and documents listed as controls. Then walk them in the field.
Existing standards or procedures	Map what you have onto the nine parts of D3. Most procedures cover performance requirements and training; few cover failure modes, verification or corrective actions. Fill the gaps rather than rewrite.
Existing inspections and audits	Keep them, and do not count them as verification. A general inspection checks broad compliance; V2 tests one critical control. Some inspection items can move into V2.
Existing pre-start forms	If workers already use a Take 5 or a pre-start card, put the task's critical control checks (V3) on it, rather than adding another form. Change the form, not the habit.
Your incident system	Add 'critical control failure' as an incident type, with 'high potential incident' as its classification. R2 can be your system's investigation record or sit beside it.
Mining and other regulated industries	If your industry has its own law on critical controls or principal hazards, use the toolkit to do the work that law requires, and check its specific requirements (section 11).

6. Setting the toolkit up

Fill this in once. Several tools refer to it.

Setting	What to record	Ours
Who runs the toolkit	Name and role, and how much time they have for it	
Who sponsors it	An owner, director or senior manager who will receive R4 and resource the actions	
Our existing risk framework	Risk matrix, risk register and procedures: where they are, and how critical risks link to them (section 5)	
WHS or OHS law and regulator that apply	Act, regulations, relevant codes of practice, any mining or industry law, regulator (section 11)	
Health and Safety Representatives and committee	Names, work groups, how and when we consult	

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Setting	What to record	Ours
How incidents and failures are reported	The system, form or app; where a Fail is recorded; who is told	
Who may restart work after a Fail	The risk owner, or who else, for each critical risk	
How long help takes to arrive	Ambulance and fire to each site; this sets the mitigating critical controls for fast events	
Where completed tools are kept	System or folder, and who can see them	

Consultation: talk with your workers, and give them a real opportunity to contribute before decisions are made, when identifying critical risks, building the bowtie, selecting and standardising the critical controls, and changing them. Good consultation is timely (before decisions are made), genuine (views are considered, not just collected), inclusive (everyone affected, contractors included), documented (it shows how input was sought and used). The workshop record, the standards and the review record each have a place to record it.

7. The first twelve months

Period	Do	Output	Do not
Month 1	Name who runs the toolkit and who sponsors it. Fill in the settings. Set up R1 and R3 so a failure has somewhere to go. Run I1 with the people who know the work, and start I2.	I2 with the critical risks prioritised; R1 agreed	Start bowties for every critical risk
Months 2 and 3	Take priority 1 only. Prepare and run the I4 workshop; build the I3 bowtie; walk it in the field. Run D1 and enter the critical controls in D2. Name owners (D4).	One validated bowtie; four or so critical controls with owners	Select more critical controls than you can verify
Months 3 and 4	Write a performance standard (D3) for each critical control, with the people who use it. Build the V2 checklist and the V3 worker checklist from the standards. Set up V1.	Approved standards; V2 and V3 in use; V1 planned	Write standards nobody in the field has read
Months 4 to 6	Verify on the schedule. Use R1 every time a result is not a Pass, and R2 for every Fail. Track actions in R3 to re-verification. Write V4 each month.	Monthly V4; every Fail investigated	Log a Fail as just an action
Months 7 to 9	Take priority 2, then 3, through the same steps, faster. Report to the owners or directors with R4. Use R5 when anything changes.	Two or three critical risks verified; first R4	Report only the green results
Months 10 to 12	Review the first bowtie (R5). Check Pass quality against hazard and incident data. Review I2 with the same people as month 1. Plan year two.	Reviewed CR-01; reviewed I2; year two plan	Stop verifying a control because it keeps passing

NOTE A business of fifteen people with one afternoon a month: set up R1 and R3, then take your single worst critical risk through I3, D1, D2 and V2. Verify its critical controls monthly, respond to every Fail, and add the next critical risk only when the first is running.

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8. Tool by tool

I1 Critical risk identification worksheet (docx)

Purpose: Finds the events that could kill or permanently disable someone, consequence first, writes each as a specific unwanted event, and prioritises them

When: Setting up; every year; after a fatality or serious incident anywhere in your industry; when the business takes on new kinds of work

Who: The owners or senior people, whoever runs WHS or risk, supervisors, the Health and Safety Representative and experienced workers, together

Connects: Feeds I2. The highest priority critical risk goes to an I4 workshop and an I3 bowtie first.

I2 Critical risk register (xlsx)

Purpose: One row per critical risk: the unwanted event, its worst credible consequence, its priority, its risk owner, where its bowtie is up to and when it is next reviewed

When: Kept continuously; reviewed on the schedule it sets

Who: Whoever runs WHS or risk keeps it; risk owners keep their rows current

Connects: Fed by I1. Bowtie status from I3; critical control counts from D2; review dates from R5.

I3 Bowtie analysis template (docx)

Purpose: Maps one unwanted event: its causes and preventive controls on the left, its consequences and mitigating controls on the right, read left to right

When: One per critical risk, starting with the highest priority; filled in during the workshop (I4)

Who: The workshop group, recorded by the facilitator

Connects: Built in the I4 workshop for one row of I2. Every control on it goes through D1.

I4 Bowtie workshop facilitation guide (docx)

Purpose: How to plan and run a bowtie workshop with the people who do the work: who to invite, what to bring, the running order, the questions to ask and the traps

When: Before each bowtie workshop, and for reviewing a bowtie

Who: Whoever facilitates: often whoever runs WHS or risk, or an experienced supervisor

Connects: Produces I3 and the first pass of D1. Actions from the workshop go to R3.

D1 Critical control selection worksheet (docx)

Purpose: Takes every control on the bowtie through two questions in order: is it a control, and is it critical? Records why each was or was not selected

When: In the bowtie workshop, or straight after it; whenever a control is added or changed

Who: The workshop group or a smaller team with the risk owner

Connects: Takes the controls from I3. Selected critical controls go into D2 and each gets a D3 and an owner in D4.

D2 Critical control register (xlsx)

Purpose: One row per critical control: the risk and cause or consequence it acts on, its owner, its performance standard, how and how often it is verified, and the last result

When: Kept continuously; updated after every verification

Who: Whoever runs WHS or risk keeps it; control owners keep their rows current

Connects: Fed by D1. Each row has a D3 and an owner from D4. Verified on the V1 schedule with V2; results recorded here.

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