

# How To Comply With The New Critical Control Management Requirements of the QLD Mining Legislation

Christian Young – CEO

# Tell us about you



- Where are you watching from?
- On a scale of 1-10 how familiar are you with the revised Critical Control Management requirements?

# How To Comply With The New Critical Control Management Requirements of the QLD Mining Legislation

Christian Young – CEO

# 3 Gets



Get your  
tools

Get rid of  
distractions

Get in state

**What's the impact if you don't get  
the management of Critical  
Controls, right?**

# Where are we with CCM & Legislation?



What's The  
Problem?



How do we know  
this to be true?



My Promise

# I help you save lives at work



**BHP**



**Teck**

**GLENCORE**



# My style

UMM!!!!

Shorten it to “CCM”

We'll move fast

I need you





# Content

The Fundamentals

Q&A

My all won't be enough



# Stick around

Slides

This Recoding

Free bonus?

**What are the changes and  
where did they come from?**

# Resources Safety and Health Legislation Amendment Bill 2024



## Policy objectives and the reasons for them

The principal policy objectives of the Bill are to improve the sector's safety and health performance to reduce the occurrence of fatalities and serious accidents. It facilitates growth in high-reliability organisation (HRO) behaviours within the resources sector, modernises regulatory enforcement powers and ensures resources safety and health legislation is contemporary and effective.

The reforms have been informed by: a review of all fatal accidents in Queensland mines and quarries from 2000 to 2019 (Brady Review); the Queensland Coal Mining Board of Inquiry (Coal Mining Board of Inquiry) finalised in May 2021; and the Queensland Government's mining industry-wide safety resets in 2019 and 2021.

The Bill contains a package of preventative and proactive reforms that amend the *Resources Safety and Health Queensland Act 2020* (RSHQ Act), the *Coal Mining Safety and Health Act 1999* (CMSHA), the *Explosives Act 1999* (Explosives Act), the *Mining and Quarrying Safety and Health Act 1999* (MQSHA), and the *Petroleum and Gas (Production and Safety) Act 2004* (P&G Act), collectively referred to as the Resources Safety Acts, to:

- facilitate the growth in HRO behaviours within the resources sector—these amendments place emphasis on reforms that improve the implementation of critical controls by industry, increased competency requirements for critical roles, improved training, continual professional development requirements, information sharing and incident notification and reporting, and strengthening protections for workers against reprisals;
- modernise regulatory enforcement powers—these amendments will enhance existing compliance and enforcement tools under the Resources Safety Acts, such as the directives framework, as well as introduce enforceable undertakings and further court orders;
- provide for more contemporary legislation; and
- enhance the operation and administration of the legislation through a range of minor operational amendments.

Objective

Inputs to Amendments

What's impacted

Intended Outcome

# What's included



- Facilitating the growth in high-reliability organisational (HRO) behaviours
  - **Critical Control Management**
  - Competency for key safety critical roles
  - Continuing professional development (CPD)
  - Improved data and incident reporting
  - Information sharing to improve safety
- Modern regulatory enforcement
  - Enforceable undertakings
  - Court orders
  - Directives
- Contemporary legislation
  - Labour hire agencies, contractors and service providers
  - Industrial manslaughter
  - Remote operating centres (ROCs)
  - Safety critical roles at or near the mine site
  - A contemporary Board of Examiners

# Passed on 12<sup>th</sup> June 2024



- 12-month window starts on 1st June 2025
- Recent Intelligence;
  - By 1 September 2025, Underground Mines must integrate critical controls into 13 mandatory PHMPs; Open-cut Mines into 4 mandatory PHMPs.
  - By 10 June 2026, critical controls must be fully integrated into PHMPs.

## Resources Safety and Health Legislation Amendment Bill 2024

Introduced by: **Hon S Stewart MP** on 18/4/2024

Stage reached: PASSED with amendment on 12/6/2024

- ▶ Bill
- ▶ Exp Note
- ▶ Statement of Compatibility
- ▶ Explanatory Speech
- ▶ Committee
- ▶ AinC govt agreed
- ▶ AinC exp note
- ▶ AinC statement of compatibility

# What are the Critical Control Management Requirements

# Objective



## Critical controls

The policy objective is achieved by amending the CMSHA and the MQSHA to integrate critical control requirements within the SHMS. These amendments will ensure critical controls are clearly and specifically incorporated as a component in the overall SHMSs for all coal mines, metalliferous mines and quarries, so that there is a clearer focus on critical controls and their effectiveness and ensuring that risk to persons from operations are kept at an acceptable level. The focus is on the most serious risks to safety and health and the critical controls definition aligns with the International Council on Mining and Metals' guidelines.



# Amendment of Coal Mining Safety and Health Act 1999



## Amendment of s 30 (How is an acceptable level of risk achieved)

*Clause 6* amends section 30(2) to add critical controls to what risk management elements and practices the systems at a coal mine must incorporate to achieve an acceptable level of risk.

## Amendment of s 47A (Obligation of officers of corporations)

*Clause 15* subclause (1) amends section 47A(3)(b) and (d) so that the due diligence required of officers of corporations will also include gaining an understanding of critical controls associated with the coal mining operations, and to ensure the corporation's processes for receiving and considering information regarding incidents, hazards and risks and responding in a timely way, also includes receiving and considering information regarding critical controls.

## Amendment of s 62 (Safety and health management system)

Subclause (2) amends section 62(5) to include identifying critical controls as a measure to ensure that an SHMS is adequate and effective to achieve an acceptable level of risk.

## Amendment of s 63 (Principal hazard management plan)

*Clause 34* amends section 63(1) to require that a principal hazard management plan must also include critical controls.

## Amendment of sch 3 (Dictionary)

The definition of "critical control" is inserted and means a risk control measure for a coal mine that is critical to prevent a material unwanted event at the coal mine or mitigate the consequences of a material unwanted event at the coal mine; and the absence or failure of which would significantly increase risk despite the existence of other risk control measures. This new definition supports amendments made by this Bill to introduce critical controls as part of SHMS requirements under the Act. It is based on the definition used in the International Council on Mining and Metals' *Health and Safety Critical Control Management: Good Practice Guide*.

The definition of "material unwanted event" at a coal mine, means an unwanted event in relation to which the potential or real consequence to safety or health exceeds a threshold defined by the coal mine operator as warranting the highest level of attention. It is based on the definition used in the International Council on Mining and Metals' *Health and Safety Critical Control Management: Good Practice Guide*.

## Timeline

Section 329 (Deferral of requirements relating to critical controls) provides that new sections 30, 47A, 62(5) and 63(1) do not apply until the day that is 1 year after the commencement. Former sections 30, 47A, 62(5) and 63(1) continue to apply until that day that is 1 year after

the commencement. This will provide 1 year for SSEs to have critical controls included in the principal hazard management plans and SHMS for a coal mine.

# Amendment of Mining and Quarrying Safety and Health Act 1999



## Amendment of s 27 (Risk management)

*Clause 153* amends section 27 to add critical controls to what risk management elements and practices the systems at a mine must incorporate to achieve an acceptable level of risk.

## Amendment of s 44A (Obligation of officers of corporations)

*Clause 162* subclause (1) amends section 44A(3)(b) and (d) so that the due diligence required of officers of corporations will also include gaining an understanding of critical controls associated with the operator's mining operations, and to ensure the corporation's processes for receiving and considering information regarding incidents, hazards and risks and responding in a timely way, also includes receiving and considering information regarding critical controls.

## Amendment of s 55 (Safety and health management system)

Subclause (2) amends section 55(5) so that the requirements for a mine's SHMS to be adequate and effective to achieve an acceptable level of risk also includes identifying **critical controls**. Under other subsections of section 55 this will also require implementing and monitoring critical controls as part of the SHMS.

The definition of "critical control" is inserted to mean a risk control measure for a mine that is critical to prevent material unwanted event or mitigate the consequences of a material unwanted event at the mine; and the absence or failure would significantly increase risk despite the existence of other risk control measures. This new definition supports amendments made by this Bill to introduce critical controls as part of SHMS requirements under the Act. It is based on the definition used in the International Council on Mining and Metals' *Health and Safety Critical Control Management: Good Practice Guide*.

The definition of "material unwanted event", at a mine, means an unwanted event in relation to which the potential or real consequence to safety or health exceeds a threshold defined by the operator as warranting the highest level of attention. It is based on the definition used in the International Council on Mining and Metals' *Health and Safety Critical Control Management: Good Practice Guide*. The amendment is necessary because the term is now used in several provisions within the Act.

## Timeline

Section 296 (Deferral of requirements relating to critical controls) subclause (1) provides that new sections 27, 44A, and 55(5), as amended by the *Resources Safety and Health Legislation Amendment Act 2024*, do not apply until the day that is 1 year after the commencement.

# How to comply with CCM Requirements

# Definitions

# Material Unwanted Event



## Coal Mining Safety and Health Act 1999

The definition of “material unwanted event” at a coal mine, means an unwanted event in relation to which the potential or real consequence to safety or health exceeds a threshold defined by the coal mine operator as warranting the highest level of attention. It is based on the definition used in the International Council on Mining and Metals’ *Health and Safety Critical Control Management: Good Practice Guide*.

## Mining and Quarrying Safety and Health Act 1999

The definition of “material unwanted event”, at a mine, means an unwanted event in relation to which the potential or real consequence to safety or health exceeds a threshold defined by the operator as warranting the highest level of attention. It is based on the definition used in the International Council on Mining and Metals’ *Health and Safety Critical Control Management: Good Practice Guide*. The amendment is necessary because the term is now used in several provisions within the Act.

# Suggested Action



- Review current definition of your “Critical Risk” and ensure alignment to legislation.
  - If you use a different term (e.g. Material Risk. Critical Risk) ensure alignment to definition and linkage to legislated term.
  - Ensure reference to “exceeding a threshold”
- If you don’t have this term, consider accepting this definition.
- Ensure the definition is document within your SHMS (e.g. Risk Management Procedure, Glossary of Terms, etc)
- Self Assessment - How compliant is your organisation to this requirement? (rating out of 10)

# Materiality Threshold



- The legislation does not 'tell you' which of your risks are material unwanted events. You need to work it out.
- To calculate which risks are material you need to define a threshold based on consequence.
- So how do you do this?



# Materiality Threshold

**Material Consequences**  
will be classed a  
Material Unwanted  
Event and included  
within the Broad-Brush  
Risk Assessment

## Materiality Threshold

**Immaterial Consequences**  
will not be included  
within the BBRA  
Managed via other  
Risk Management  
(WRAC, JSA, SLAM)

	Health & Safety	Environment	Financial Impact	Image & Reputation / Community	Legal & Compliance
<b>5 Catastrophic</b>	<ul style="list-style-type: none"> <li>Multiple fatalities (2 or more fatalities in a single incident)</li> <li>Multiple cases (5 or more) of Permanent Damage Injuries or Diseases that result in permanent disabilities in a single incident</li> </ul>	<ul style="list-style-type: none"> <li>Unconfined and widespread</li> <li>Environmental damage or effect (permanent; &gt;10 years)</li> <li>Requires major remediation</li> </ul>	<ul style="list-style-type: none"> <li>&gt;\$600M investment return</li> <li>&gt;\$100M operating profit</li> <li>&gt;\$20M property damage</li> </ul>	<ul style="list-style-type: none"> <li>Loss of multiple major customers or large proportion of sales contracts</li> <li>Sustained campaign by one or more international NGOs resulting in physical impact on the assets or loss of ability to operate</li> <li>Security incident resulting in multiple fatalities or major equipment damage</li> <li>Formal expression of significant dissatisfaction by government</li> <li>Grievance from internal or external stakeholder alleging human rights violation resulting in multiple fatalities</li> </ul>	<ul style="list-style-type: none"> <li>Major litigation / prosecution at corporate level</li> <li>Nationalisation / loss of licence to operate</li> </ul>
<b>4 Major</b>	<ul style="list-style-type: none"> <li>Single incident resulting 1 Fatality Permanent Damage Injury or Disease that results in a permanent disability- less than 5 cases in a single incident</li> </ul>	<ul style="list-style-type: none"> <li>Long-term (2 to 10 years) impact</li> <li>Requires significant remediation</li> </ul>	<ul style="list-style-type: none"> <li>\$60-600M investment return</li> <li>\$20-100M operating profit</li> <li>\$2-20M property damage</li> </ul>	<ul style="list-style-type: none"> <li>Security/ stakeholder incident resulting in single loss of life or equipment damage</li> <li>Grievance from internal or external stakeholder alleging human rights violation resulting in single fatality or serious injuries</li> <li>Topic of broad societal concern and criticism</li> <li>Negative media coverage at international level resulting in a Corporate statement within 24 hours</li> <li>Investigation from government and/ or international (or high-profile) NGOs</li> <li>Complaints from multiple "final" customers</li> <li>Loss of major customer</li> <li>Negative impact on share price</li> </ul>	<ul style="list-style-type: none"> <li>Major litigation / prosecution at Department level</li> </ul>
<b>3 Moderate</b>	<ul style="list-style-type: none"> <li>Lost Time Injury (LTI)</li> <li>Lost Time Disease (LTD)</li> <li>Permanent Disabling Injury (PDI)</li> <li>Permanent Disabling Disease (PDD)</li> <li>Single incident that results in multiple medical treatments</li> </ul>	<ul style="list-style-type: none"> <li>Medium-term (&lt;2 years) impact (typically within a year)</li> <li>Requires moderate remediation</li> </ul>	<ul style="list-style-type: none"> <li>\$6-60M investment return</li> <li>\$2-20M operating profit</li> <li>\$200K-2M property damage</li> </ul>	<ul style="list-style-type: none"> <li>Negative media coverage at national level over more than one day</li> <li>Complaint from a "final" customer</li> <li>Off-spec product</li> <li>Local Stakeholder action resulting in national societal scrutiny</li> </ul>	<ul style="list-style-type: none"> <li>Major litigation / prosecution at Operation level</li> </ul>
<b>2 Minor</b>	<ul style="list-style-type: none"> <li>Medical Treatment Injury (MTI)</li> <li>Medical Treatment Disease (MTD)</li> <li>Restricted Work Injury (RWI)</li> <li>Restricted Work Disease (RWD)</li> </ul>	<ul style="list-style-type: none"> <li>Near source</li> <li>Short-term impact (typically &lt;week)</li> <li>Requires minor remediation</li> </ul>	<ul style="list-style-type: none"> <li>\$600K-6M investment return</li> <li>\$200K-2M operating profit</li> <li>\$10-200K property damage</li> </ul>	<ul style="list-style-type: none"> <li>Negative local/ regional media coverage</li> <li>Complaint received from an internal or external stakeholder</li> </ul>	<ul style="list-style-type: none"> <li>Regulation breaches resulting in fine or litigation</li> </ul>
<b>1 Negligible</b>	<ul style="list-style-type: none"> <li>First Aid Injury (FAI) or illness (not considered disease or disorder)</li> </ul>	<ul style="list-style-type: none"> <li>Near source and confined</li> <li>No lasting environmental damage or effect (typically &lt;day)</li> <li>Requires minor or no remediation</li> </ul>	<ul style="list-style-type: none"> <li>&lt;\$600K investment return</li> <li>&lt;\$200K operating profit</li> <li>&lt;\$10K property damage</li> </ul>	<ul style="list-style-type: none"> <li>Negligible media interest</li> </ul>	<ul style="list-style-type: none"> <li>Regulation breaches without fine or litigation</li> </ul>



# Materiality Threshold



- Once you have identified your threshold - define the threshold within your SHMS e.g.
  - *“A risk is classed as a Material Unwanted Event if its potential consequence is equal to or exceeds the following Criteria;*
    - *Health and Safety Consequence equal to or exceeding Level 4*
    - *Environment Consequence equal to or exceeding Level 3*
    - *Etc, etc,”*
- Self Assessment - How compliant is your organisation to this requirement? (rating out of 10)

# Materiality Threshold



- Does this mean that potential single fatality consequence events will be classed as Material Unwanted events?

# Materiality Threshold



- Once you have identified your threshold you need a mechanism to formally identify which risks meet or exceed your materiality threshold.
- What is a mechanism you can use for this?

# Broad Brush Risk Assessment (BBRA)



- Sometimes called Base Line Risk Assessment (BLRA).
- The objective of the BBRA is to look across an entire organisation or site, identify the hazards, find potential MUEs and prioritise them.
- Often completed in the WRAC template.
- Good practice is to complete / review the BBRA every 12 months.
- Self Assessment - How compliant is your organisation to this requirement? (rating out of 10)

Geographic Area	Hazard / Risk Source Classification	Hazard / Risk Source Description	Release Mechanism <i>Example of how this energy can be released (unwanted events)</i>	Description of Unwanted Event	Maximum consequence (with no controls)	Material Unwarranted Event (Yes, No)	Functional Ownership	Current Controls	Likelihood of the Event (given current controls)	Consequence Types (given current controls)						Max Risk Rank
										H&S	(E)	(F)	(R)	(L&R)	(S&C)	
Underground	Mechanical (Mobile)	Underground Mobile Equipment	Single Vehicle Incident (Bollinger, runaway, uncontrolled movement, break through window, runaway vehicle) Multiple Vehicle Incident (Vehicle Collision, Pedestrian Strike)	Loss of control of mobile equipment (underground)	C5: Ext	Yes	Open Pit Manager Mining	Corporate - Major Hazard Management Standard Regional - Principal Mining Hazard Management Standard TM & SD - Areas where mobile equipment operates PHMP TM & SD - Traffic Management Plans TM & SD - Underground Traffic Management Plan	L4: Likely	C5: Ext						34 (E)
Surface	Mechanical (Mobile)	Surface Mobile Equipment	Single Vehicle Incident (Bollinger, runaway, uncontrolled movement, contact with infrastructure, contact with Pit wall) Multiple Vehicle Incident (Vehicle Collision, Pedestrian Strike, busing of personnel) SD - Haulage vehicles crossing public access road Autonomous drill interaction or uncontrolled movement	Loss of control of mobile equipment (surface)	C5: Ext	Yes	Open Pit Manager Mining	Corporate - Major Hazard Management Standard Regional - Principal Mining Hazard Management Standard TM & SD - Areas where mobile equipment operates PHMP TM & SD - Traffic Management Plans SD - Autonomous Equipment Management Plan	L4: Likely	C5: Ext						34 (E)
Offlease	Mechanical (Mobile)	Offsite vehicle incident	Journey Incident, Single Vehicle Incident, vehicle Collision,	Loss of control of vehicle offsite	C5: Ext	Yes	Open Pit Manager Mining	Corporate - Major Hazard Management Standard Regional - Principal Mining Hazard Management Standard SD - Offsite Journey Management and Remote Area Access Procedure TM - Drive in and Drive Out Procedure	L4: Likely	C5: Ext						34 (E)
Whole of Site	Mechanical (Fixed)	Collapse of Structure	Processing plant structural failure, Tank Failure, Conveyor structure failure, Bin Structural Failure, Failure of concrete foundations	Collapse of Structure	C5: Ext	Yes	Chief Engineer	TM - TGM Scaffolding Management Plan SD - Classified Plant Procedure Third Party Annual Structural Integrity Audit	L3: Unlikely	C5: Ext						32 (E)
Whole of Site	Aviation	Aviation Incident	On site Incident, offsite Incident, Drones, Helicopter operations, Charter Flights, underground drones	Aviation Incident	C5: Ext	Yes	Regional Aviation Appointed person - Aerodrome Survey - Drone	Corp - AGAA Aviation Procedure Corp - AGAA Remotely Piloted Aircraft SD - Aerodrome Safety Management System, SD - Aerodrome Manual SD - Drone RPA Flying Guideline TM - Aerodrome Safety Management System, TM - Aerodrome Manual TM - Aviation Management Plan TM - drone SHMS documents TBA	L2: Very Unlikely	C5: Ext						30 (M)
Whole of Site	Confined Spaces	Confined Spaces	Toxic Atmosphere, Engulfment, Irrespirable atmosphere flammable atmosphere Tanks, chutes, pits, mobile plant spaces,	Exposure to toxic or irrespirable atmosphere in confined space	C5: Ext	Yes	Processing Manager	TM - Confined Spaces Procedure TM - Permit to Work and Isolations Procedure SD - PTW - Confined Entry Procedure SD - PTW Permit to Work	L2: Very Unlikely	C5: Ext						30 (M)
Whole of Site	Pressure / Explosions	Explosion (not from Explosives)	Flammable gas, Bottled Gas, O2 Plant, Hot Works,	Explosion (not from Explosives)	C5: Ext	Yes	H&S Manager	Corporate - Major Hazard Management Standard Regional - Principal Mining Hazard Management Standard SD - Fire Explosions PHMP TM - Fire Explosions PHMP	L2: Very Unlikely	C5: Ext						30 (M)
Surface	Fire	Surface Fire	Building fire, conveyor fire, tyre fire, bush fire, warehouse, hazardous substance, Mobile Equipment Fire, MBI Fire, Lithium batteries in battery propelled transport (e.g. Inaggy's).	Surface fire	C5: Maj	Yes		Corporate - Major Hazard Management Standard Regional - Principal Mining Hazard Management Standard SD - Fire Explosions PHMP TM - Fire Explosions PHMP SD - Fire Protection Equipment Procedure SD - Fire Protection Systems Impairment Procedure	L2: Very Unlikely	C5: Maj						27 (M)

# Critical Controls



## Coal Mining Safety and Health Act 1999

The definition of “critical control” is inserted and means a risk control measure for a coal mine that is critical to prevent a material unwanted event at the coal mine or mitigate the consequences of a material unwanted event at the coal mine; and the absence or failure of which would significantly increase risk despite the existence of other risk control measures. This new definition supports amendments made by this Bill to introduce critical controls as part of SHMS requirements under the Act. It is based on the definition used in the International Council on Mining and Metals’ *Health and Safety Critical Control Management: Good Practice Guide*.

## Mining and Quarrying Safety and Health Act 1999

The definition of “critical control” is inserted to mean a risk control measure for a mine that is critical to prevent material unwanted event or mitigate the consequences of a material unwanted event at the mine; and the absence or failure would significantly increase risk despite the existence of other risk control measures. This new definition supports amendments made by this Bill to introduce critical controls as part of SHMS requirements under the Act. It is based on the definition used in the International Council on Mining and Metals’ *Health and Safety Critical Control Management: Good Practice Guide*.

# Suggested Action



- Review current definition of your “Critical Control” and ensure alignment to legislation.
- If you don’t have this term, consider accepting this definition.
- Ensure the definition is document within your SHMS (e.g. Risk Management Procedure, Glossary of Terms, etc)
- Self Assessment - How compliant is your organisation to this requirement? (rating out of 10)

# Check question



- Does this mean that potential single fatality consequence events will have Critical Controls?

# Determining Critical Controls



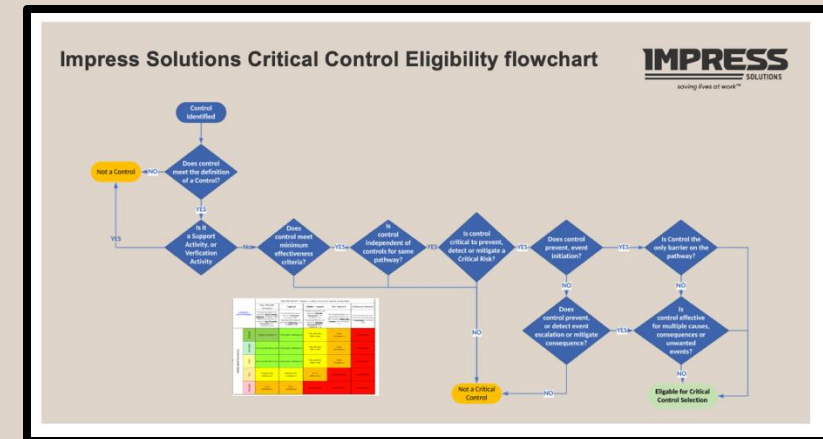
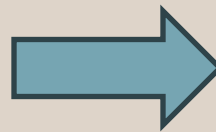
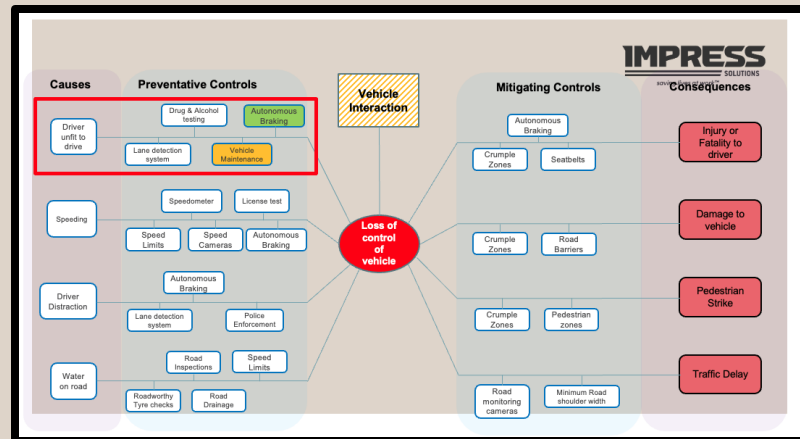
# What is your process for determining Critical Controls?



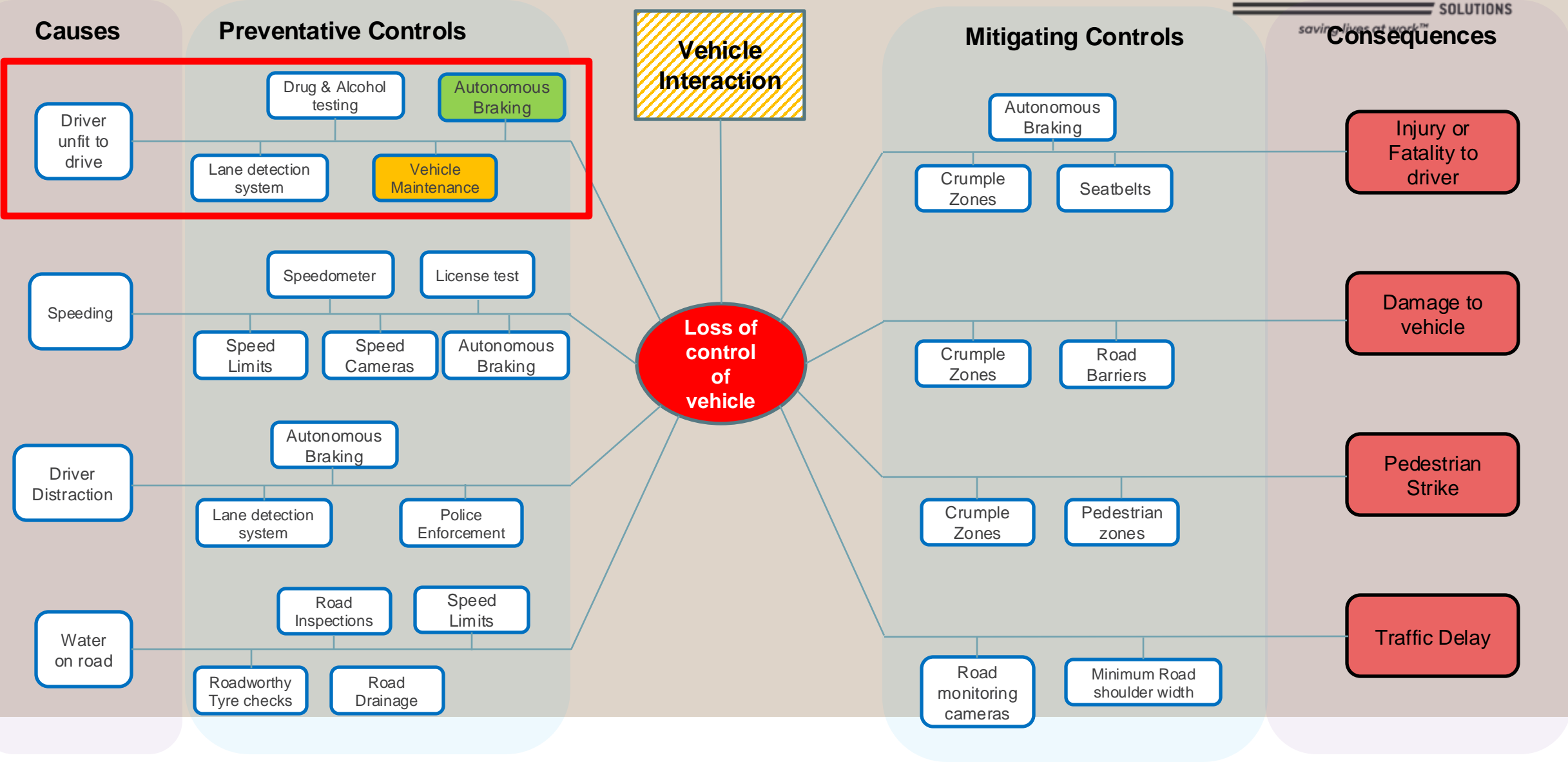
- Do you have one?

# Suggested Action

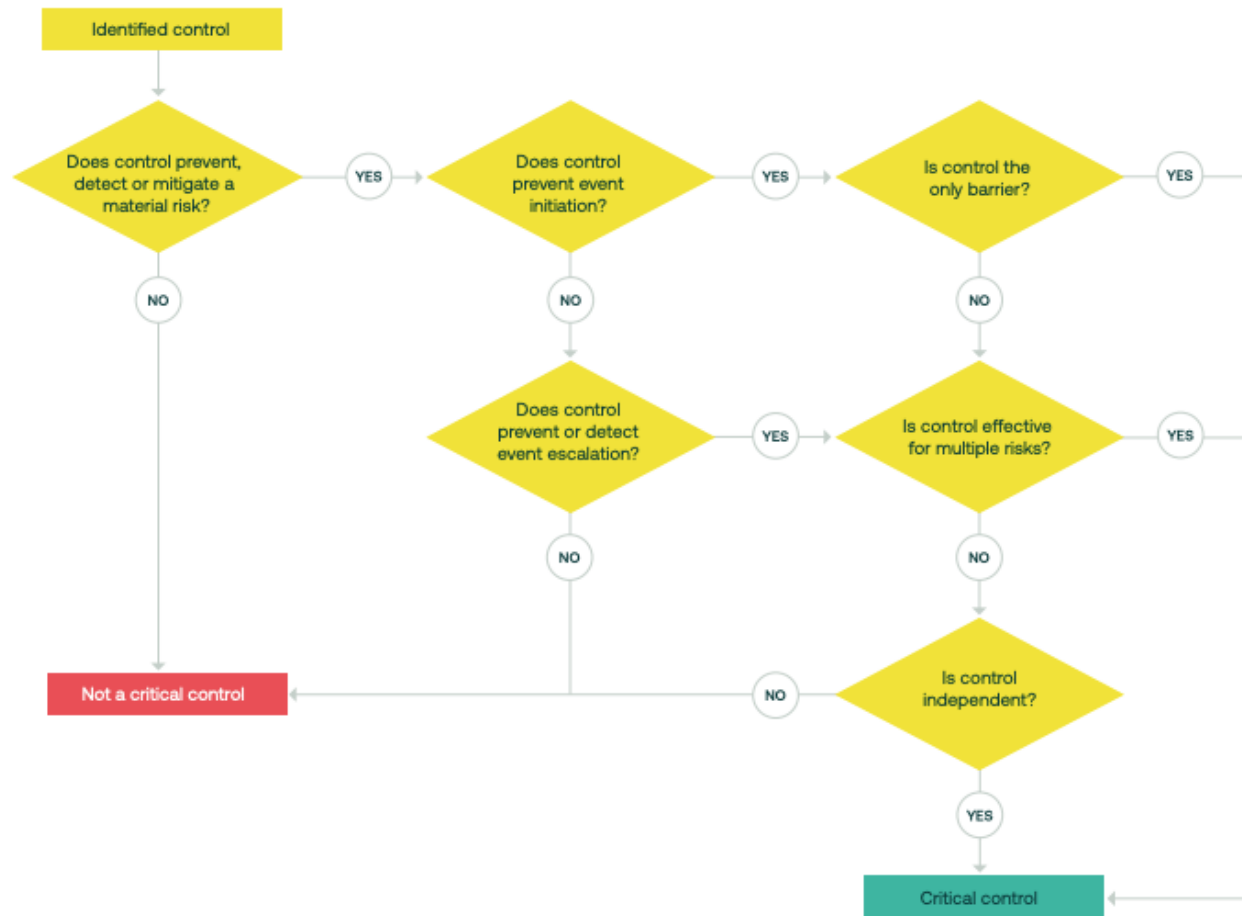
- To identify a Critical Control, you need to;
  - Complete a Risk Assessment on each Material Unwanted Event (e.g. Bowtie Analysis),
  - Apply criteria to determine which controls are Critical



# Simple Bowtie Analysis Example

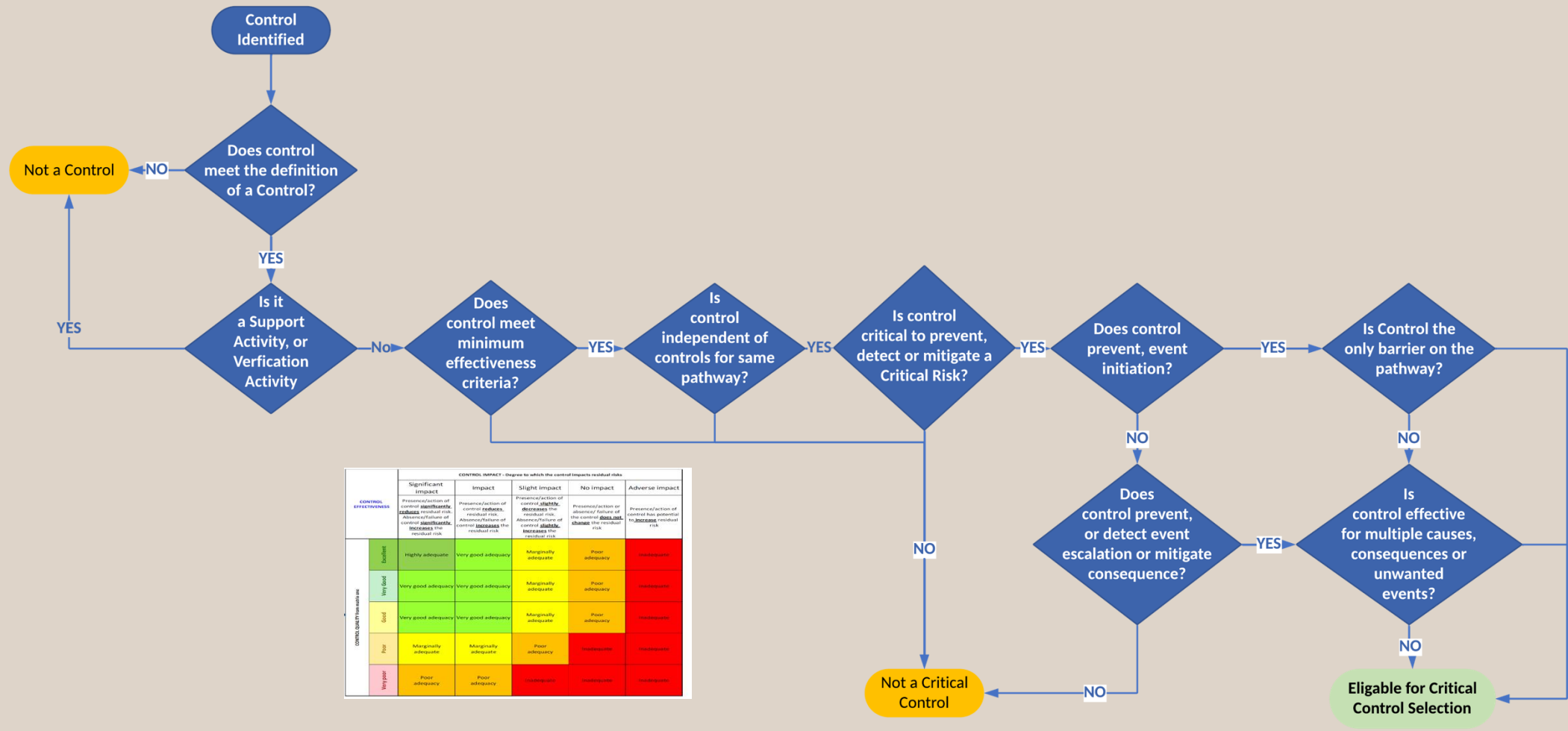


# ICMM selection flowchart



Source: Adapted from BHP Billiton.

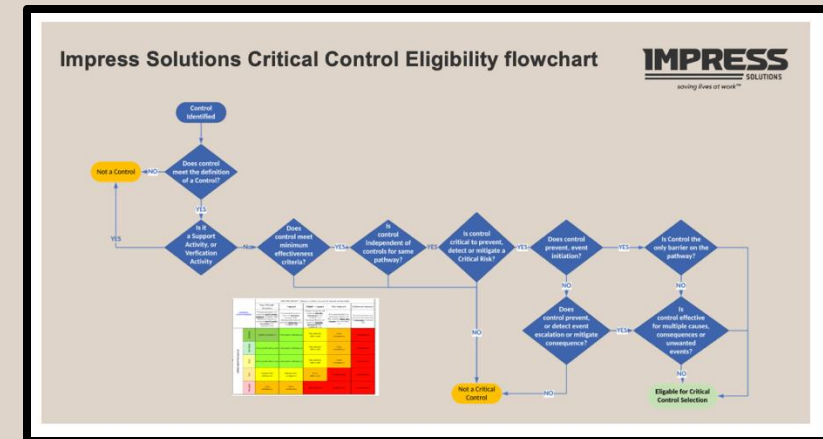
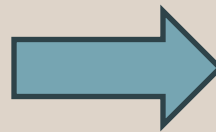
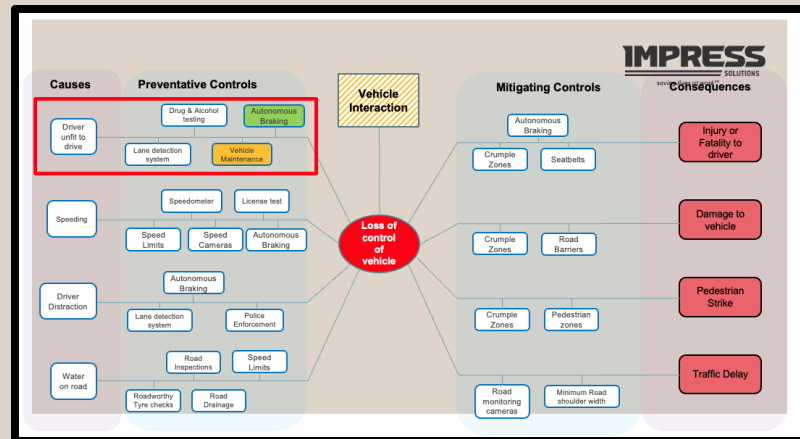
# Impress Solutions Critical Control Eligibility flowchart



CONTROL IMPACT - Degree to which the control impacts residual risks						
CONTROL EFFECTIVENESS		Significant impact	Impact	Slight impact	No impact	Adverse impact
		Presence/action of control <b>significantly reduces</b> residual risk. Absence/failure of control <b>significantly increases</b> the residual risk.	Presence/action of control <b>reduces</b> residual risk. Absence/failure of control <b>increases</b> the residual risk.	Presence/action of control <b>slightly reduces</b> residual risk. Absence/failure of control <b>slightly increases</b> the residual risk.	Presence/action of control <b>does not change</b> the residual risk.	Presence/action of control has potential to <b>increase</b> residual risk.
CONTROL QUALITY - How well the control is implemented	Excellent	Highly adequate	Very good adequacy	Marginally adequate	Poor adequacy	Inadequate
	Very Good	Very good adequacy	Very good adequacy	Marginally adequate	Poor adequacy	Inadequate
	Good	Very good adequacy	Very good adequacy	Marginally adequate	Poor adequacy	Inadequate
	Poor	Marginally adequate	Marginally adequate	Poor adequacy	Inadequate	Inadequate
	Very poor	Poor adequacy	Poor adequacy	Inadequate	Inadequate	Inadequate

# Critical Control Selection

- Self Assessment - How compliant is your organisation to this requirement? (rating out of 10)



# Critical Controls and the Risk Management Framework

# Requirement



## Coal Mining Safety and Health Act 1999

### **Amendment of s 30 (How is an acceptable level of risk achieved)**

*Clause 6* amends section 30(2) to add critical controls to what risk management elements and practices the systems at a coal mine must incorporate to achieve an acceptable level of risk.

## Mining and Quarrying Safety and Health Act 1999

### **Amendment of s 27 (Risk management)**

*Clause 153* amends section 27 to add critical controls to what risk management elements and practices the systems at a mine must incorporate to achieve an acceptable level of risk.

How would you comply with this requirement?



# Suggested Action



- Update your Risk Management Procedure to at a minimum;
  - Provide definitions i.e. Critical Control, Material Unwanted Event.
  - Describe what Material Unwanted Events are, how they are identified (Broad Brush Risk Assessment), how they are managed / monitored / improved to achieve an acceptable level of Risk.
  - Describe what Critical Controls are, how they are identified (Bowtie Analysis, Critical Control Selection Process), how they are managed / monitored / improved to achieve an acceptable level of Risk.
- Review / Update other risk management processes (template, procedure, training) to support management of Material Unwanted Events and Critical Controls
  - Risk Register, JSA, Take 5, SLAM, Work Instructions, SOPs, MPs, PHMPs, Work Management Process, Contractor Management, Training Management, Change Management, Safety Interactions, Visible Felt Leadership, Planned Task Observations, Workplace Inspections, Statutory Inspections, internal / external audit process, Incident Reporting & Investigation.
- Self Assessment - How compliant is your organisation to this requirement? (rating out of 10)

# Critical Controls and the Safety and Health Management System

# Requirement



## Coal Mining Safety and Health Act 1999

### Amendment of s 62 (Safety and health management system)

Subclause (2) amends section 62(5) to include identifying **critical controls** as a measure to ensure that an SHMS is adequate and effective to achieve an acceptable level of risk.

## Mining and Quarrying Safety and Health Act 1999

### Amendment of s 55 (Safety and health management system)

Subclause (2) amends section 55(5) so that the requirements for a mine's SHMS to be adequate and effective to achieve an acceptable level of risk also includes identifying **critical controls**. Under other subsections of section 55 this will also require implementing and monitoring critical controls as part of the SHMS.

How would you comply with this requirement?

# Suggested Action (from a compliance perspective)



- Update your Risk Management Procedure to at a minimum;
  - Provide definitions i.e. Critical Control, Material Unwanted Event.
  - Describe what Material Unwanted Events are, how they are identified (Broad Brush Risk Assessment), how they are managed / monitored / improved to achieve an acceptable level of Risk.
  - Describe what Critical Controls are, how they are identified (Bowtie Analysis, Critical Control Selection Process), how they are managed / monitored / improved to achieve an acceptable level of Risk.

# Suggested Actions (from an effectiveness perspective)



- There should be a one-to-one relationship between the Material Unwanted Event, the Bowtie Analysis and SHMS document which describes the risk and how it will be controlled.
  - e.g. MUE : Falling from height > Falling from height Bowtie Analysis > Working at Height Management Plan
  - Consideration should also be given to any legislated SOPs and their overlap with MUE documents.
    - E.g. MUE of Underground Fire and Legislated requirement of Action to be taken in the event of Fire
- Determine how Critical Controls will be documented within PHMPs, MPs, SOPs. At least two options;
  - Write the Critical Controls into Material Unwanted Event PHMP / HMP / SOP, or,
  - Create a Register of Material Unwanted Events and Critical Controls and provide this as a reference to the PHMP / HMP / SOP
- Self Assessment - How compliant is your organisation to this requirement? (rating out of 10)

# Critical Controls and Officers of Corporations

# Requirement



## Coal Mining Safety and Health Act 1999

### Amendment of s 47A (Obligation of officers of corporations)

*Clause 15* subclause (1) amends section 47A(3)(b) and (d) so that the due diligence required of officers of corporations will also include gaining an understanding of **critical controls** associated with the coal mining operations, and to ensure the corporation's processes for receiving and considering information regarding incidents, hazards and risks and responding in a timely way, also includes receiving and considering information regarding critical controls.

## Mining and Quarrying Safety and Health Act 1999

### Amendment of s 44A (Obligation of officers of corporations)

*Clause 162* subclause (1) amends section 44A(3)(b) and (d) so that the due diligence required of officers of corporations will also include gaining an understanding of critical controls associated with the operator's mining operations, and to ensure the corporation's processes for receiving and considering information regarding incidents, hazards and risks and responding in a timely way, also includes receiving and considering information regarding critical controls.

Who might be an officer within your organisation?

How would you comply with this requirement?

# Who is an officer?



If a corporation has an obligation under this Act, an officer of the corporation must exercise due diligence to ensure the corporation complies with the obligation.

*officer*, of a corporation, does not include a person appointed as, or whose position reports directly or indirectly to, the site senior executive for a coal mine.

An officer of a corporation may be convicted or found guilty of an offence under this Act relating to an obligation of the officer whether or not the corporation has been convicted or found guilty of an offence under this Act relating to an obligation of the corporation.

My interpretation - Organisational roles not on the site management structure, who's level of responsibility is such they could be convicted if they did not act on Critical Control / Critical Risk Information

Who might be an officer within your organisation?



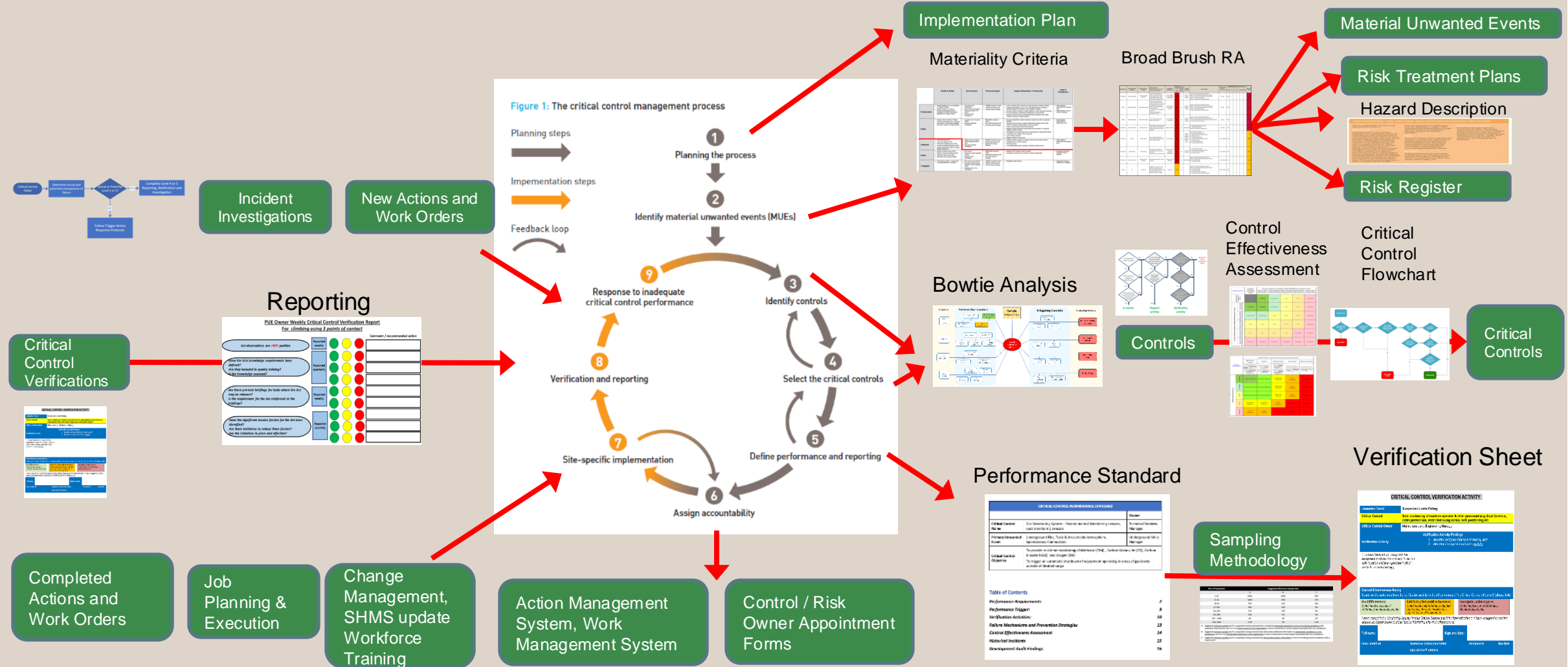
# Suggested Course of Action



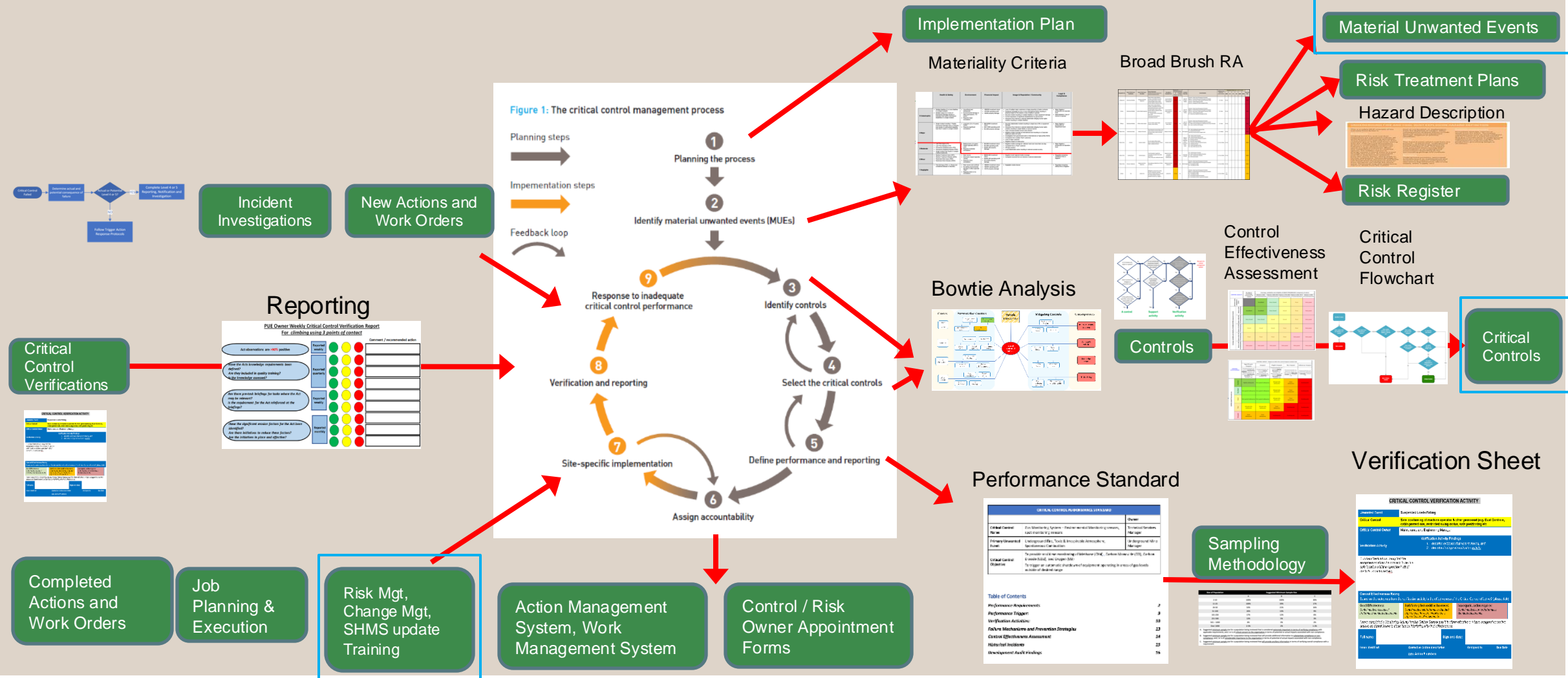
- Determine who are 'Officers of Corporations' for your organisation.
- Identify how you will monitor and report on the health of the Critical Controls.
  - E.g. Critical Control Verification Program
- Identify how you will provide this information to these Officers in a timely manner for their review and potential action.
  - Example - include information on Material Unwanted Events and Critical Controls within the Monthly H&S report and ensure this is socialised with all key stakeholders (officers).

# Reflection

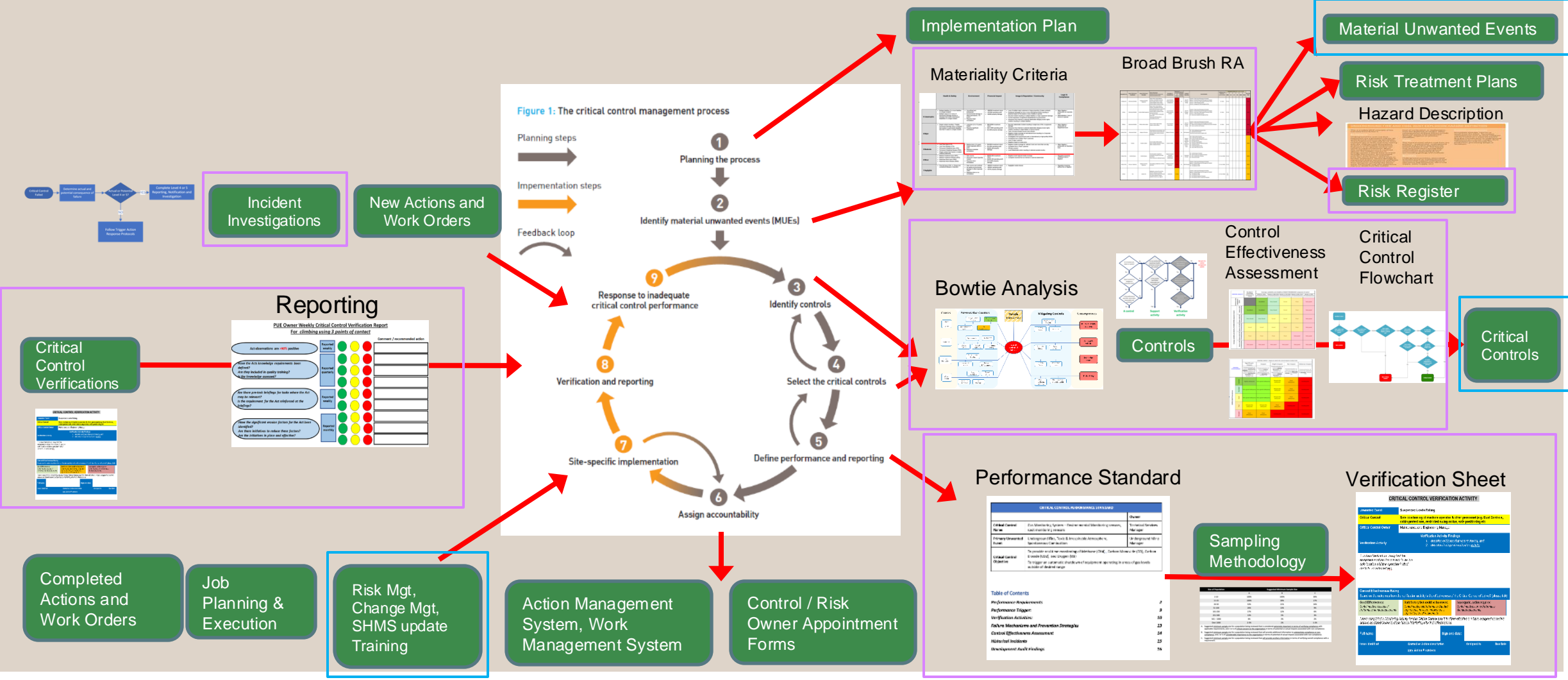
# CRM Framework



# Legislation Vs CRM Framework



# The journey to legislative compliance



What has been your biggest “ah-hah” moment?





# Company rating



- Based on the content we've just been through what rating out of 10 would you rating your organisations level of preparedness for these changes





# Key Learning:

**There is a considerable amount of work required**

**If you rush or take shortcuts you will be 'compliant' but not 'effective'**

# The obvious question

How do I do it?



# Slow or Fast

Trial and Error Vs system

Help is here – If you don't know how big the gap is



Free Critical Risk  
Management Review

It's not for everyone



**Save lives at work**

Complete Critical Risk  
Self-Assessment  
(10 mins)



15-minute call with  
Christian



You have an action  
plan for compliance

## Self-Assessment and Goal Setting Form

Prior to our onboarding call please complete the self-assessment form.

### Process Step 2: Critical Risk Identification



6.0 Action Plan: to support Performance standard development or review		
Improvement Action	Who	When
<b>Fatigue Management Procedure</b> Requires update with revised Personal fatigue and journey management plan process such as: <ul style="list-style-type: none"> <li>Temporary Journey management plan process including: Timeframe for document completion, requirement for travel contact person, copy of form to go to contact person, Control room to be informed or and monitor travel through to completion and follow up if check in times have not been met.</li> <li>Revise Personal fatigue management process to define temporary Personal Fatigue &amp; Travel Management Plans process including Control Room Operator monitoring process.</li> <li>Where it is identified that a coal mine worker has not completed a Personal Fatigue &amp; Travel Management Plan that their line manager is to arrange for completion and submission to HST department that shift.</li> </ul>		
<b>Personal Fatigue &amp; Travel Management Plan updates</b> <ul style="list-style-type: none"> <li>Define how far in advance of travel temporary management plans need to be submitted and signed off. (e.g. 48 hours)</li> <li>Define fields for temporary travel</li> <li>Define fields for contact person for temporary travel</li> <li>Provide guidance that for temporary travel a scanned copy of the form is to be provided to contact person, control room, and HST (<a href="#">what email address?</a>)</li> </ul>		
<b>Onboarding Process:</b> <ul style="list-style-type: none"> <li>Revise onboarding process to ensure that distribution and return of Personal Fatigue &amp; Travel Management Plan is complete prior to site and attending induction.</li> <li>Determine how these returned forms will be sent back to site, reviewed and provided to the training department for Pegasus upload.</li> </ul>		
<b>Opportunity – to define how many fixed travel personnel meeting 200km/ 2 hour requirement</b> <b>Training Request Form</b> Update the Training request form to ensure that for any training travel which requires greater than 200km or 2 hours by road a completed and approved journey management form is provided to enable Training request approval. Contractor Management Process		

# Benefits



You know exactly where you are and what to do in 40 minutes, not 5 years.



Don't pay \$100K to Consultants for a review



Use our 25 years of CRM skills and experience to improve your process.

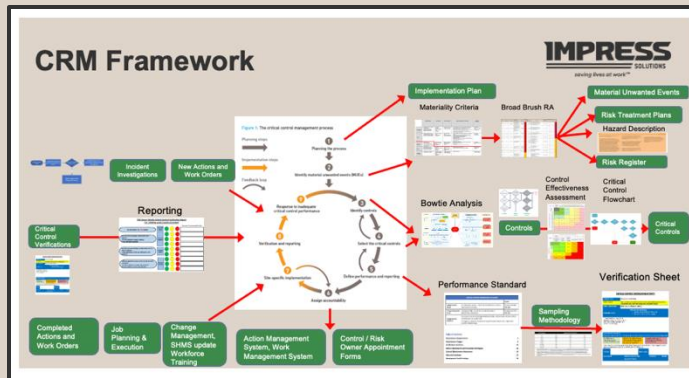


Identify low hanging fruit that can make meaningful change.



# Help is here – If you want the knowledge, tools and template to implement the CRM framework

2-day Critical  
Risk  
Management  
Masterclass  
Brisbane  
30<sup>th</sup> / 31<sup>st</sup>  
January



**IMPRESS**  
SOLUTIONS  
saving lives at work™



The Future of CRM Industry trends and future developments

Elements of a CRM Key components of a successful CRM program

Identification of Critical Risks Developing and delivering a leading Baseline Risk Assessment

Analysis of Material Critical Risks Bowtie Analysis, Layers of Protection Analysis, Identification of Controls and Critical Controls

Critical Control Performance Standards Developing statistically significant verification processes

Site Implementation Ensuring successful and sustainable CRM implementation

Verification, Reporting, and Response Effective CRM reporting and response strategies

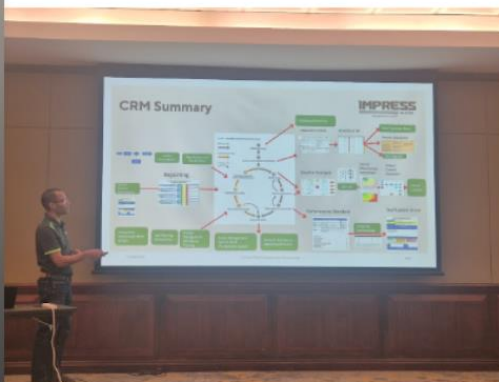




**JMR**  
2 reviews · 1 photo

★★★★★ 3 weeks ago **NEW**

This training was to a very high standard and I would highly recommend it to others. Christian has a very good understanding of the material which made it easy for us to ask questions and receive relevant answers. All safety and risk professionals should do this training.



**Bob Hayes**  
6 reviews

★★★★★ 3 weeks ago **NEW**

Christian made a complex subject palatable, kept the group engaged, a fun learning experience, great resources to take back to site, individual and team based activities. If you need to learn about critical risk management, this is the course to do.

**M Martin West**  
5 reviews

★★★★★ a month ago

Very impressed! Christian ran a great virtual workshop which provided us with in depth information and resources that will enhance our critical control risk approach. Highly recommend!

**T Tanya Cambetis**  
5 reviews

★★★★★ 3 weeks ago **NEW**

I completed the two day masterclass on critical risk management with Christian, it was incredible. I have never had someone explain nor present such heavy content in a way that is both easy to absorb and take way for immediate implementation in your own workplace.

**J Jack Farry**  
1 review

★★★★★ 4 months ago

Impress Solutions have developed a comprehensive training package for businesses starting the Critical Control Management journey or even for those that have already ventured down that road. The step by step process is delivered expertly by a seasoned health and safety professional who draws on a wealth of experience, providing plenty of practical examples and know-how.

**P Phoebe Westaway**  
2 reviews

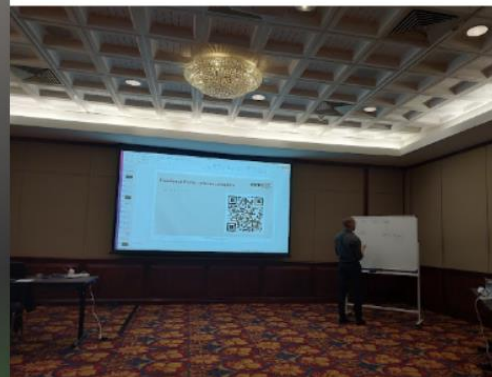
★★★★★ 5 months ago

The Critical Risk Management Masterclass is worthwhile for anyone interested or invested in Critical Risk Management. The course is interesting and engaging, touching on the full lifecycle of critical risk and critical control management. Highly recommend!

**Radical Bravo**  
Local Guide · 56 reviews · 4 photos

★★★★★ 5 months ago

This is the best CRM training available in Australia and well worth the time and investment.



**G Gianluca Nigro**  
3 reviews

★★★★★ a month ago

Highly recommend this course, very well run and a lot of knowledge and useable resources come with it

**Ho ki Leung**  
1 review

★★★★★ a month ago

Great session on Critical Risk Management with Christian 🙌 many useful tools and was able to get a refresh on some fundamental risk management concepts ...

**Xtine Eats**  
Local Guide · 48 reviews · 7 photos

★★★★★ a year ago

This was much more interactive than I expected for a Risk Management course has plenty of good technical content



**S Snezana Bajic**  
8 reviews

★★★★★ 4 months ago

Great training, critical risk management from different perspectives, very useful and practical

# Help is here – If you want 24/7 CRM support

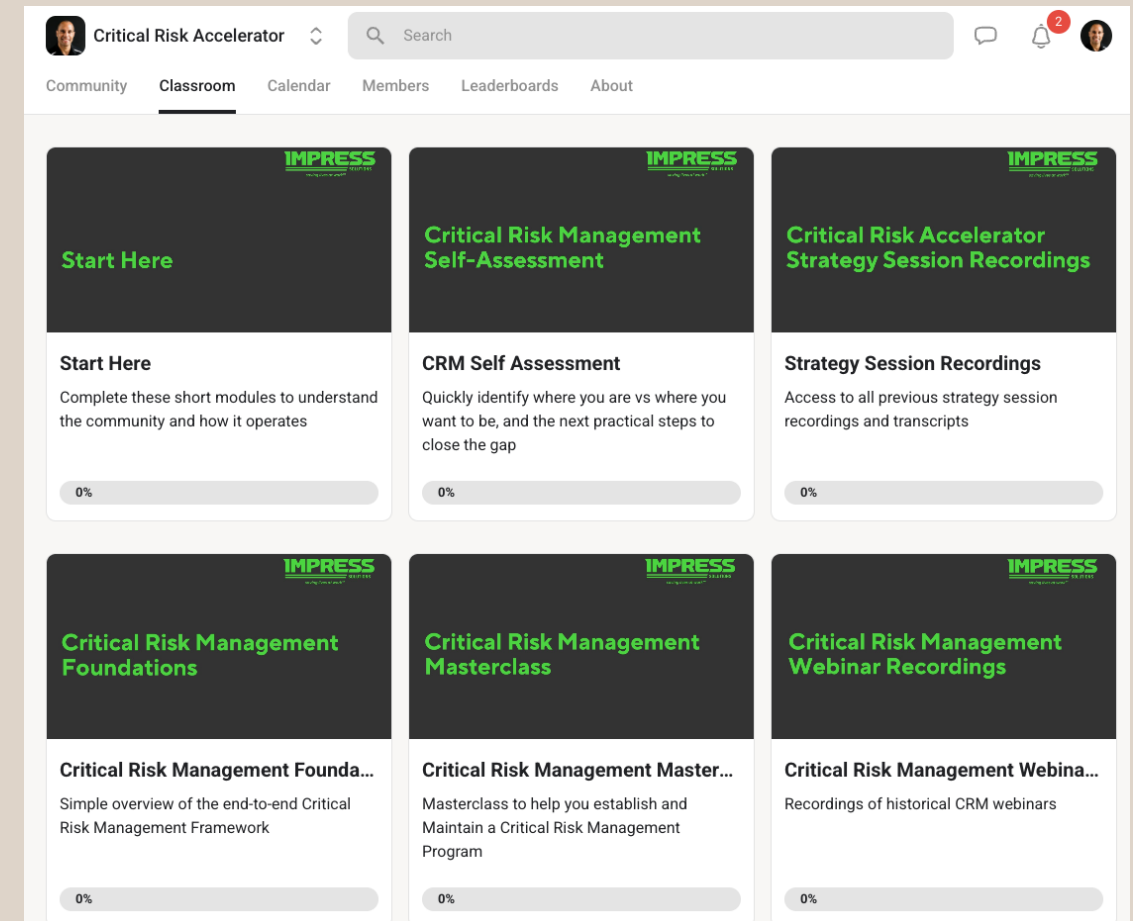
## Critical Risk Accelerator



### INSIDE THE CRITICAL RISK ACCELERATOR YOU GET:

- ✓ Fortnightly calls where you bring 'your one thing' – The thing that is your biggest issue to progression and come up with an action plan that you can go implement immediately.
- ✓ Access to Impress Solutions Critical Risk Library – Our library of Critical Risks and Critical Controls, Templates, etc that we usually reserve for our clients that pay us 6 figures per year.
- ✓ Community sharing of documents, knowledge libraries and whatever else you need to help your progression. For example, an already completed bowtie analysis on a risk you have not yet "bowtied"... This would save you at least two days of time and effort.
- ✓ Anonymous group chat where you can ask questions and share information in a way that you can't currently do due to bureaucracy (one of my biggest peeves at the moment).
- ✓ Direct access to myself for advice – so you never feel 'stuck' again when it comes to your Critical Risk program.
- ✓ Up to date notes from field implementation. We share the latest information on Critical Risk Management from our implementation projects and what we are seeing happening across industry.

Will send a link for free 1 month access to the community



# Services we provide



## Critical Control Management

- Done by you (we set you up for success)
  - CRM training for CRM Specialists, Risk Owners, Front Line Supervisors
  - Critical Risk Management Audits
- Done with you (You do it with our help)
  - Critical Risk Management Advisory Services
  - We draft the documents, you take them through to completion
- Done for you (we take care of it for you)
  - Critical Risk Management Consultancy / Contractor

## General H&S Services

- Consultants, Labour Hire, Safety & Health Management Systems, Audits, Safety Training, Learning Teams, Leadership in Safety,

# Questions?

CRM Masterclass



<https://go.impresssolutions.com.au/crm-brisbane2025>

Free CRM Self-Assessment



<https://link.zoovr.io/widget/survey/3V2850Fpn58JFe5hN7R2?notrack=true>

# Submitted



- Who should own critical controls, particularly for cross-departmental hazards such as fire and explosion, and how can organisations formally assign ownership for each control in a way that ensures clear accountability and sufficient authority
- What competencies/qualifications are required to effectively verify and inspect critical controls, and how can organisations ensure that those performing these checks maintain the necessary expertise and independence
- The decision process for defining a critical control and supporting control, I've seen some good decision trees and some very confusing ones, and then once you determine what is a critical control how do we ensure we are putting the required effort into managing the control.

# Resources

- Slides + Recording
- Once recording is edited, we will send through materials





# Christian Young

## CEO | Managing Director

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[www.impresssolutions.com.au](http://www.impresssolutions.com.au)



**Thankyou**