

The Master Code: Putting theory into practice

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Supply Chain Safety Excellence

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The Master Code is...

A guide on the risk assessment process

An itemisation of common CoR risks

An itemisation of an available *range* of suggested controls

Guidance on how to implement tailored risk assessment and control selection

Guidance on what is ‘reasonably practicable’

A platform for a defence under the HVNL

The Master Code is not...

- An 'out of the box' risk assessment suitable for your business
- A 'ready-to-go' compliance management system
- A definitive list of the 'reasonably practicable' steps that you need to take

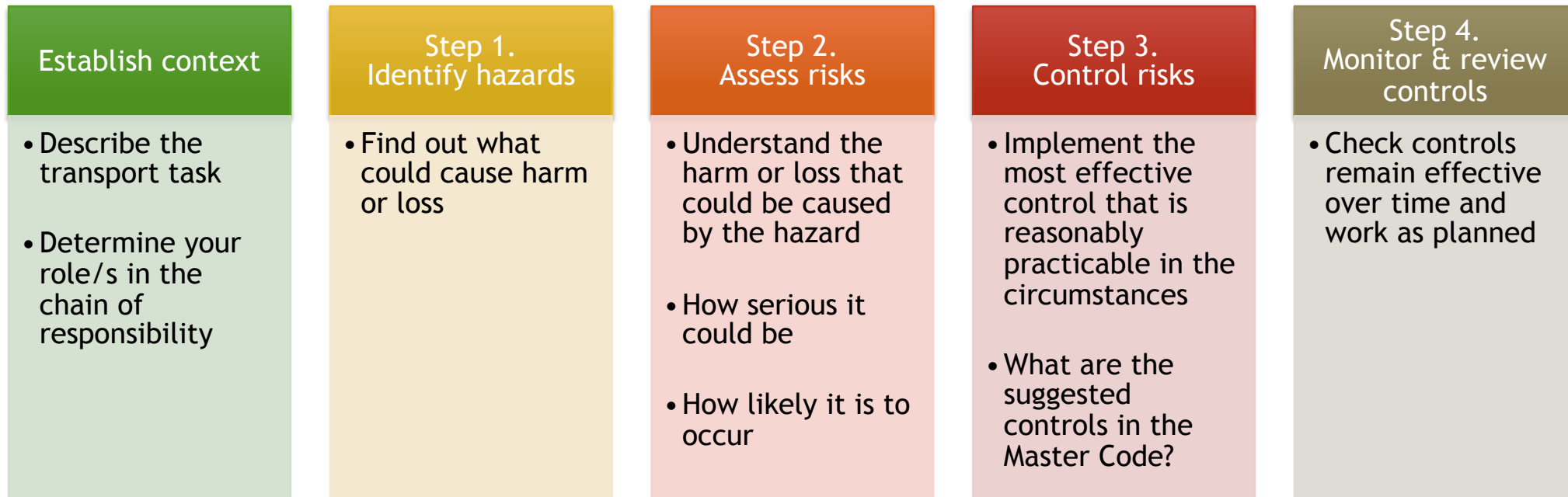
Where to start?

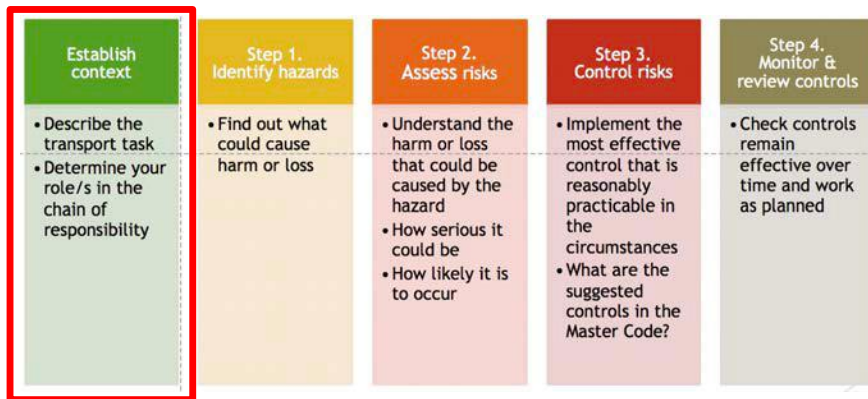


To audit, or

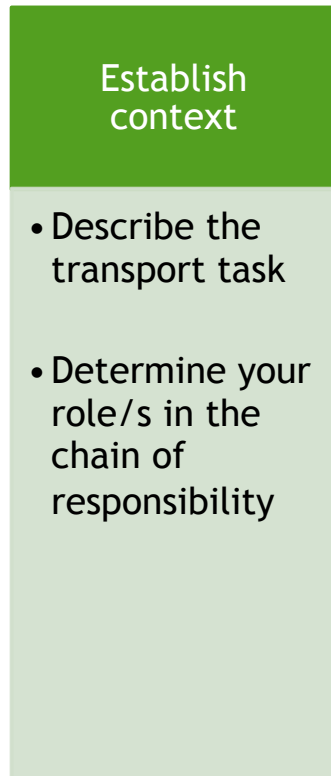
To assess risks

How to identify hazards and assess risks

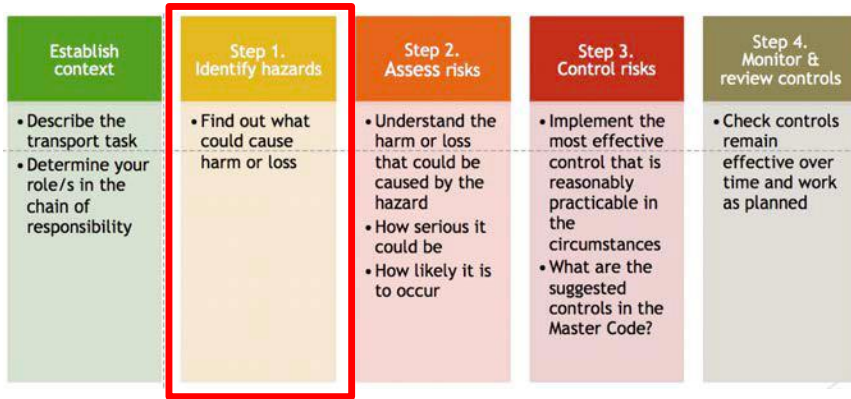




What are your transport activities?



- The transport of what goods (or passengers) using what type of heavy vehicle/s, where to/from, how often and so on
 - Why? Different transport tasks will have different hazards and risks
 - Determine your role/s in the chain of responsibility
 - Why? Different CoR parties will have different hazards and risks in how they influence and control the transport activity
- ❑ Document in a '*Transport Activity Register*'



What are the hazards?

Step 1. Identify hazards

- Find out what could cause harm or loss
- Speed
- Fatigue
- Mass, Dimension & Loading
- Vehicle standards

- Identify anything that could potentially cause *harm or loss*
 - Activities or business practices
 - Behaviours
 - Situations
 - Management practices
- How to identify hazards
 - Ask the person doing the job / observe work practices
 - Consult with other CoR parties
 - Review incidents, inspection and audit findings

Establish context	Step 1. Identify hazards	Step 2. Assess risks	Step 3. Control risks	Step 4. Monitor & review controls
<ul style="list-style-type: none"> Describe the transport task Determine your role/s in the chain of responsibility 	<ul style="list-style-type: none"> Find out what could cause harm or loss 	<ul style="list-style-type: none"> Understand the harm or loss that could be caused by the hazard How serious it could be How likely it is to occur 	<ul style="list-style-type: none"> Implement the most effective control that is reasonably practicable in the circumstances What are the suggested controls in the Master Code? 	<ul style="list-style-type: none"> Check controls remain effective over time and work as planned

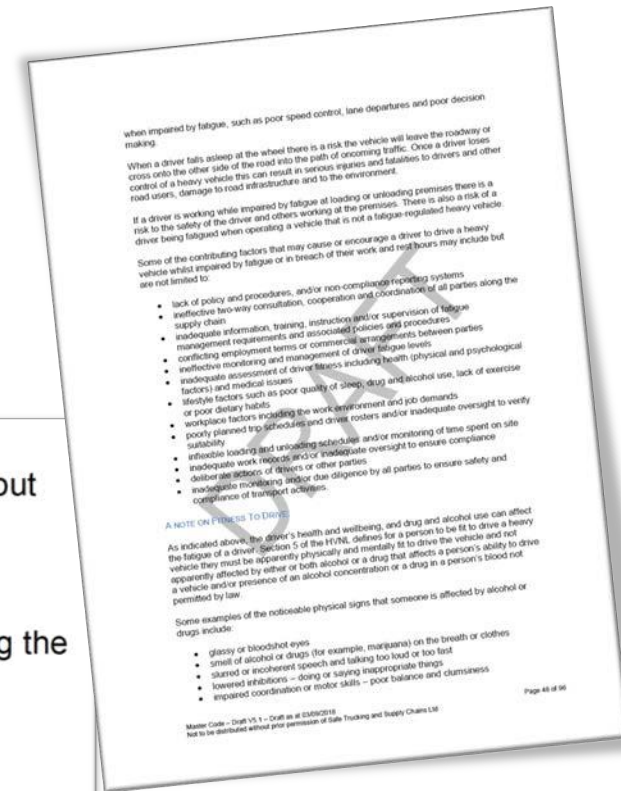
What does the Master Code say?

Step 1. Identify hazards

- Find out what could cause harm or loss
- Speed
- Fatigue
- Mass, Dimension & Loading
- Vehicle standards

Some of the contributing factors that may cause or encourage a driver to drive a heavy vehicle whilst impaired by fatigue or in breach of their work and rest hours may include but are not limited to:

- lack of policy and procedures, and/or non-compliance reporting systems
- ineffective two-way consultation, cooperation and coordination of all parties along the supply chain
- inadequate information, training, instruction and/or supervision of fatigue management requirements and associated policies and procedures
- conflicting employment terms or commercial arrangements between parties
- ineffective monitoring and management of driver fatigue levels
- inadequate assessment of driver fitness including health (physical and psychological factors) and medical issues
- lifestyle factors such as poor quality of sleep, drug and alcohol use, lack of exercise or poor dietary habits
- workplace factors including the work environment and job demands
- poorly planned trip schedules and driver rosters and/or inadequate oversight to verify suitability
- inflexible loading and unloading schedules and/or monitoring of time spent on site
- inadequate work records and/or inadequate oversight to ensure compliance
- deliberate actions of drivers or other parties
- inadequate monitoring and/or due diligence by all parties to ensure safety and compliance of transport activities.



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What are the risks?

Step 2. Assess risks

- Understand the harm or loss that could be caused by the hazard
- How serious it could be
- How likely it is to occur

- Consider how the hazard could cause harm or loss
 - How could someone be hurt?
 - How could damage occur?
- Consider your existing controls to eliminate or minimise the risk

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What does the Master Code say?

Step 2. Assess risks

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6 FATIGUE – RISK TYPES AND SUGGESTED CONTROLS

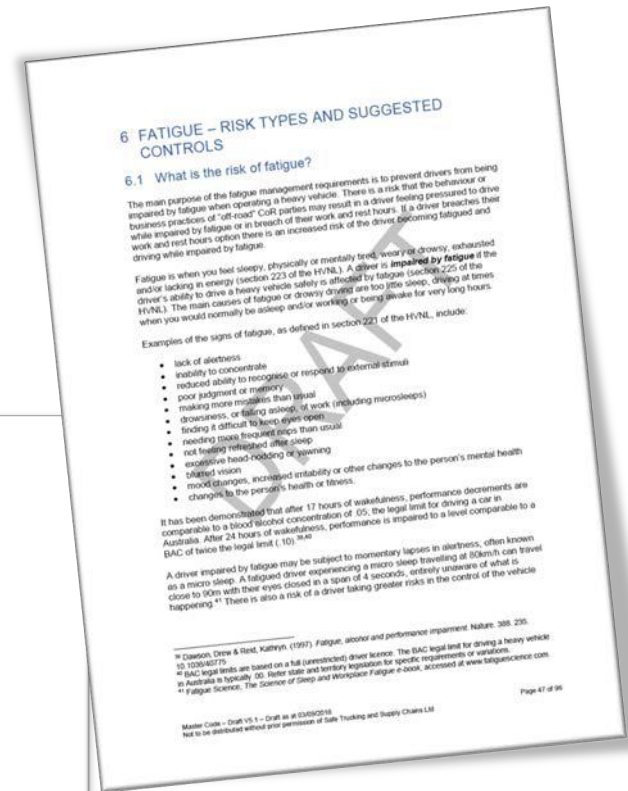
6.1 What is the risk of fatigue?

The main purpose of the fatigue management requirements is to prevent drivers from being impaired by fatigue when operating a heavy vehicle. There is a risk that the behaviour or business practices of "off-road" CoR parties may result in a driver feeling pressured to drive while impaired by fatigue or in breach of their work and rest hours. If a driver breaches their work and rest hours option there is an increased risk of the driver becoming fatigued and driving while impaired by fatigue.

Fatigue is when you feel sleepy, physically or mentally tired, weary or drowsy, exhausted and/or lacking in energy (section 223 of the HVNL). A driver is **impaired by fatigue** if the driver's ability to drive a heavy vehicle safely is affected by fatigue (section 225 of the HVNL). The main causes of fatigue or drowsy driving are too little sleep, driving at times when you would normally be asleep and/or working or being awake for very long hours.

Examples of the signs of fatigue, as defined in section 221 of the HVNL, include:

- lack of alertness
- inability to concentrate
- reduced ability to recognise or respond to external stimuli
- poor judgment or memory
- making more mistakes than usual
- drowsiness, or falling asleep, at work (including microsleeps)



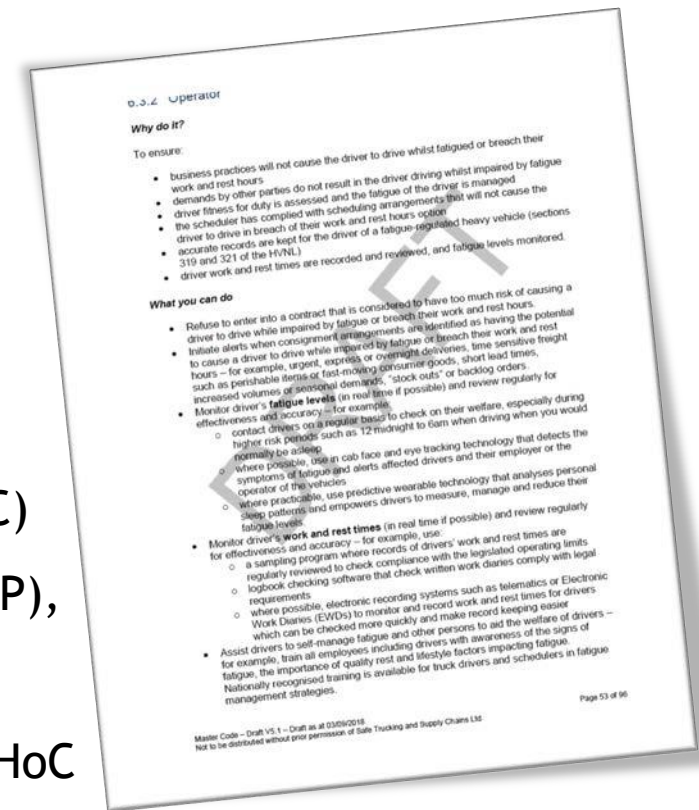
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Eliminate or minimise risks

Step 3. Control risks

- Implement the most effective control that is reasonably practicable in the circumstances
- What are the suggested controls in the Master Code?

- Work your way through the Hierarchy of Control (HoC)
 - You must always aim to eliminate the risk (SFAIRP), or
 - Minimise the risk working your way through the HoC
- Assess the suggested controls in the Master Code
 - Select suitable controls or develop your own
- Implement the controls and supporting measures
 - Procedures, training, supervision, inspections



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Hierarchy of control example

Step 3. Control risks

- Implement the most effective control that is reasonably practicable in the circumstances
- What are the suggested controls in the Master Code?

Driving between the hours of 12 midnight to 6am when a person would normally be asleep is hazard and there is an increased risk of driving while impaired by fatigue

- Eliminate - the risk by not driving between these hours
- Engineering - minimise the risk by using technology that detects the symptoms of fatigue and alerts affected drivers
- Admin - minimise the risk by contacting drivers regularly during these hours to check on their welfare
- PPE - seatbelts and SRS air bags are designed to reduce the severity of injuries to drivers, in the event of an incident

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Are the controls effective?

Step 4. Monitor & review controls

- Check controls remain effective over time and work as planned

- Take a regular look at the controls you have in place to make sure they're working
 - Seek feedback
 - Observe the controls in practice
 - Review and analyse information
 - Establish key performance indicators (KPIs)
- Review risks on a periodic basis or if things change
- ❑ Document steps 1 to 4 in your *risk register*

Worked example – Vehicle standards

Establish context	Step 1. Identify hazards	Step 2. Assess risk	Step 3. Control risk	Step 4. Monitor and review
Describe transport activity and roles in the chain of responsibility.	Identify anything that could potentially cause harm or loss .	Consider how the hazard or risk could cause harm or loss . Look at your existing controls to eliminate or minimise the risk.	Try to eliminate the risk first but, if that's not possible, put additional controls in place to minimise the risk so far as is reasonably practicable.	Regularly monitor and review the controls you've put in place to make sure they're working as planned.
Transport activities				
Vehicle standards				
<p>An equipment hire company leases and operates heavy vehicles in remote and regional locations such as mine sites.</p> <p>The vehicles operate in harsh environments being exposed to mud and dust.</p> <p>The vehicles frequently drive on unsealed roads with rough road surfaces.</p>	<p>Increased wear and tear on heavy vehicles from operating in harsh conditions.</p> <p>The company has noticed a higher number of fault reports and greater cost of maintenance and repairs on vehicles used in remote and regional areas, compared to metro locations.</p>	<p>Vehicle components could fail prematurely.</p> <p>This could cause the driver to lose control of the vehicle.</p> <p>The vehicle could run off the road or crash into a passing vehicle.</p> <p>The truck driver or other people could be seriously injured or killed.</p> <p>Vehicles are serviced by OEM authorised dealers to OEM service schedules and specifications.</p>	<p>What does the Code suggest?</p> <p><i>Service periods may vary based on the operating conditions and may need to be more frequent than the manufacturer's recommendations – for example, heavy vehicles frequently operating on unsealed roads, or regularly transporting over size over mass loads, or exposed to harsh environments;</i></p> <p>Engineering – Periodic maintenance for vehicles operating in remote and regional areas are scheduled more frequently than OEM recommended service schedules.</p> <p>Admin – Two vehicle usage types are defined and assigned to heavy vehicles, 'mining' and 'metro', which determines the service period (as above).</p>	<p>Fault reporting and maintenance/repair costs are monitored for downward trends to verify effectiveness of more frequent servicing.</p> <p>KPIs:</p> <ul style="list-style-type: none"> • Number of fault reports • Maintenance and repair costs based on usage type

Worked example - Loading

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Transport activities				
Loading				
A large machinery company, a consignee, sources pre-fabricated components from an overseas supplier. The components are packed and restrained in freight containers for shipping to Australia. The restraint of the components is done manually using tie-down restraint. When the freight containers arrive in Australia they are picked up from the wharf by a contracted transport operator. The drivers deliver the containers on skel trailers to the machinery company's warehouse for unpacking and assembly.	Poorly restrained freight in an imported shipping container (The consignee and operator are aware this in a known hazard with imported containers as there have been serious incidents reported in the media).	The freight could shift in the container during transport. The freight shifting in the container could cause the vehicle to lose control. The vehicle could rollover and crush a passing car. The driver or passenger/s of the car could be seriously injured or killed. Packing instructions, including load positioning and restraint requirements, are provided to the overseas supplier (but the control is not always effective as not all loads are correctly restrained).	Engineering – Investigate alternate load restraint methods that utilise more direct restraint such as blocking and containment and reduce the margin for error. Admin – A supervisor is required to inspect and sign-off that the freight has been correctly packed and restrained prior to sealing the container. Admin – A photograph of the freight restrained in the container is to be provided for all loads prior to shipping. Admin – The operator/scheduler develops a journey plan to identify any hazards on the route that may affect vehicle stability (e.g. harsh corners and steep descents) and advises drivers of precautions to be taken.	The freight is inspected when it is received by the consignee in Australia to verify it is correctly restrained and meets the packing instructions. Feedback is sent to the overseas supplier, including photos of any non-conformances. <u>KPIs:</u> <ul style="list-style-type: none">• Number of inspections completed• % pass/fail rate

What's next?

- ▶ Keep working through the risk management process
- ▶ Implement the controls
- ▶ Review control effectiveness
- ▶ Adjust controls as required
- ▶ Periodically review risks or if things change



Now its time to audit...

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THANK YOU

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