NHVR

Introduction to risk management

A heavy vehicle industry guide

Risk management system basics

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Foreword

The Heavy Vehicle industry plays a critical role in delivering Australia's increasing freight task and continues to successfully promote and support the nation's economic growth and prosperity.

However, with this increasing workload also come added challenges for transport operators and all parties in the supply chain, as well as additional expenses and competition, and demanding schedules and regulatory requirements. It can therefore seem difficult at times to keep pace with all of these ongoing changes, operate a successful and efficient business and continue to work safely.

As these industry demands grow, so too does the potential for hazards that create risks which can result in harm or loss to all parties in the transport supply chain and the wider community. These hazards can also lead to serious damage to property and impact the day-to-day operation and reputation of the business.

As an example of a single industry hazard, consider a poorly restrained load. This could have several consequences:

- **Harm** - the load could fall from the vehicle and harm the driver, a loader or another road user
- **Damage and loss** - the load could fall from the vehicle and become damaged or cause damage to infrastructure, resulting in reputational and financial loss
- **Penalties** - you could also receive penalties for failing to properly secure the load.

Managing the possibility that harm or loss might occur is therefore critical for any operator, employee and other party within the transport supply chain.

Although this could be perceived as additional 'red tape' or 'paperwork', in real terms, identifying and managing your risks can mean the difference between business success and disaster.

Many of you may be doing this informally and making day-to-day decisions. Formalising this process brings consistency, accuracy and demonstrates your ability to proactively manage risks and ensure safety.

In line with the changes to Primary Duty under Chain of Responsibility (CoR), all parties in the supply chain have a responsibility to proactively prevent or reduce potential harm or loss, rather than only reacting after something happens. This is why every transport operator and party in the supply chain needs to ensure they have adequate risk management processes in place.

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PART 1 – Introduction

All parties in the supply chain have a responsibility to proactively manage risk and ensure safety, rather than only reacting after something happens. A Safety Management System is the best way to ensure you are doing all you can to manage safety and meet your obligations under the Heavy Vehicle National Law (HVNL).

An effective Safety Management System has four key elements which must work together to achieve the best safety outcomes:

Adopting good risk management practices is the key to an effective Safety Management System.

About this guide

This guide will familiarise you with **risk** management and provide you with information that can help you begin to establish and refine your own processes for identifying, assessing and managing risks in your heavy vehicle transport activities.

Risk management does not have to be complicated to be effective. As you work your way through this guide, it will become clear that managing risk can be broken down to a very simple, practical concept that will help you improve safety in your business by:

- **Actively looking for hazards** in your transport activities, products, or services
- **Developing controls** to reduce the risks those hazards present
- **Monitoring** to be sure you have appropriately controlled and reduced those risks.

What if I already have a risk management system?

If you already have a risk management system in place, you will be familiar with the processes and principles in this guide as they are based on the International Risk Management Standard ISO 31000 (ISO 31000), and most likely reflect existing Workplace Health and Safety (WH&S) guidelines.

Many operators may already have some of these components in place, but may be using them informally without documenting them. For your own processes to be effective, you should begin to document them in a way that anyone can understand, and continue to **review** them based on your business needs, work activities and risks.

What's in this guide?

This guide takes you through each of the key steps in the risk management process, and briefly outlines how to use them with a practical approach. For more in-depth information you can refer to ISO 31000 – www.iso.org/iso-31000-risk-management.html

Structure of this guide

- **What and why?** – An overview of the steps and the reasons why you should do it.
- **How do you do it?** – The key activities and elements in the steps:
  - Preparing for the activities
  - The key activities involved
  - Things that will help you do it.
- **Checklist** – These will give you an idea of some important tools and processes you may need and things to consider in your own risk management system.

A key icon indicates important information, actions, activities or points for consideration.

Definitions – Terms highlighted in **bold** are explained in the Definitions section.

Examples – The end of the guide has examples which apply the risk management process to activities in the transport industry and its supply chain.

What is it?

What is risk management?

Risk management is the process of identifying anything that could or has gone wrong, considering the impact it may have on your business and making sure there are things in place to manage them. This can include the safety of people, property, finances, the environment and your business reputation. All of these things can be impacted by risk in your day-to-day transport activities.

The key to effective risk management is having a strong reporting culture in place. Frequent and open communication with people throughout the transport activity will help you better understand the risks and make informed decisions about how you manage them.

Does the size of the business matter?

No, regardless of size, risk management principles apply to all parties in the transport supply chain and all heavy vehicle transport businesses.

However, it is important to tailor any **risk management framework** or system to suit the size, nature and complexity of the operation, and the **hazards** and risks that are unique to its specific location and work activities.

What is a risk management framework?

The first step toward setting up a risk management framework is to formally document and develop risk management processes, and record hazards and risks.

A risk management framework is everything in your business that works together to enable effective and consistent risk management. This typically includes things like:

- documented policies and procedures
- strong reporting culture
- open consultation, feedback and communication.

For example: Everyone needs to be clear about how to report hazards and unsafe events, what to report and who to report it to.

A hazard and incident reporting form is a good way to gather this vital information, as hazards or incidents, including near misses, can only be controlled if you know about them. You can use the information from the reports to identify potential safety risks and take appropriate action.

What's in it for you?

What are the benefits?

Risk management is the best way to build and protect your business and other road users and ensure safety throughout the transport activity. The table below outlines some important benefits of effective risk management to your business.

Benefits
Provide a safer work environment for staff and the public
Manage your obligations under the HVNL
Demonstrate your ability to manage risk and ensure safety
Become an employer of choice and preferred supplier to customers
Make informed decisions and increase efficiency
Allocate resources to the most critical areas
Reduce insurance and WorkCover premiums.

What do you have to do?

Ensure you have an effective risk management process embedded in your business. ISO 31000 lays out the process, however this guide will explain how to apply this in a practical sense.

What steps do I follow?

All risk management processes follow the same basic steps, although different terms can sometimes be used to describe these steps. Together, the following steps and corresponding activities combine to deliver a simple and effective risk management process that can be used to manage safety throughout the transport activity.

These key steps are described in more detail throughout this guide.

Key Steps of the Risk Management Process	
Step 1 – Identify hazards	✓ Look for **hazards** and encourage people to report them ✓ Identify the risk/s created by the hazard.
Step 2 – Assess risk	✓ Consider anything already in place to manage the risk ✓ Determine the worst credible **consequence** or expected outcomes of the risk ✓ Consider the **likelihood** of that happening ✓ Decide whether the level of risk is acceptable to your business.
Step 3 – Treat risk	✓ Plan and implement **controls** that eliminate or reduce the risk.
Step 4 – Monitor and review	✓ **Monitor** risks to see if anything about them changes ✓ **Review** controls to ensure they are working as planned ✓ Ensure the controls have not introduced any new risks ✓ **Communicate** outcomes and provide feedback.

Part 2 – Risk assessment steps

Step 1 – Identify hazards

What and why?

Hazards are the source of risks. A hazard is anything that has the potential to cause harm or loss. This could be an activity or behaviour, a physical object, a situation or a management practice. It is important to identify hazards so you can investigate possible outcomes and make informed decisions. Some typical examples of hazards in the transport activity include:

- poorly restrained loads
- unrealistic schedules
- unsafe vehicles
- other road users
- inadequate procedures/training.

How do you do it?

The simplest yet most effective way to identify hazards is to have a good reporting system. A fair and just reporting culture, without blame, that encourages open communication about hazards and things that could go wrong, is essential to effective risk management.

Having a good reporting system means people are able to tell you about things that could go wrong and they feel comfortable doing so. This can be as simple as implementing a hazard report form, an email address dedicated to reporting, having face-to-face meetings or phone conversations.

- It is important people have the confidence to report things and being able to do so confidentially may help.
- It is necessary to act on anything that has been reported, because if someone reports something and nothing is done about it, it is unlikely they will bother doing it again.

Having regular meetings or discussions with staff to keep communication open, and performing spot checks and walkthroughs are also good methods of identifying hazards throughout day-to-day activities. It is also important to look for hazards when something changes; for example, on receiving a new contract or when purchasing a new piece of equipment.

Checklist

- ☐ Method for hazards to be reported
- ☐ Encourage near misses and suggestions for improvement to be reported
- ☐ Multiple ways to identify hazards (Forms/Toolbox meetings etc.)
- ☐ Investigate and record all reports of hazards
- ☐ Ensure all identified hazards have been recorded
- ☐ Process to communicate hazards that have been identified or reported to management.

Step 2 – Assess risk

What and why?

When a hazard has been identified, it is important to figure out how much of an impact it could have on the business, and how likely it is that it will happen.

- **Hazard** - anything that could cause harm or loss
- **Risk** – the possibility that harm or loss might occur as the result of a hazard.

For example: Faulty load restraint equipment is a hazard and the risk is that the load could fall from the vehicle.

Doing a risk assessment will provide you with an understanding of the level of risk and enable you to make informed decisions about whether something needs to be done to safely manage it.

How do you do it?

To assess a risk, it is important to include the right people in the process, such as people with the authority to make decisions and those involved in the task or activity associated with the risk. You need to consider:

- ✓ What is the **consequence** if the risk occured?
- ✓ What is the **likelihood** of that actually happening?

Determine the worst credible consequence of the risk

Think about the level of harm or loss the risk could create and consider anything that may already be in place to control the risk. Identify the worst possible consequence if the risk occurred and whether that is really likely to happen. It can be helpful to develop some descriptions, like those listed in the following table, to consistently describe consequences.

Only you can determine the impacts on your business. They could be minor, major, or somewhere in-between.

Consequence	Insignificant	Minor	Moderate	Major
Safety	Near miss or very minor injury	Moderate injury with lost time	Severe injury with hospitalisation	Fatality or permanent disability
Financial	Minimal cost	Medium cost	High cost	Extreme cost
Reputation	Minor impact on client relationship	Loss of client	Loss of multiple clients, difficult to win new contracts	Unable to keep operating

Remember, there can be more than one consequence from a single risk, and it is important to consider different types of consequences, such as financial, environmental, property damage, business reputation etc.

Determine the likelihood of this happening

The likelihood is the probability of the event happening with the level of consequence occurring.

For example: It has been identified that a poorly restrained load falling from a vehicle could result in damage to the freight. What is the likelihood that it will fall and the damage will occur?

Likelihood scale	Description
Almost certain	Expected to occur in most circumstances
Possible	Might occur at some time
Unlikely	Could occur at some time
Rare	May occur only in exceptional circumstances

What does this mean to you?

After identifying the consequence and the likelihood of a risk, think about what level of risk that combination means to the business.

For example:

- Is the consequence high, but the likelihood low?
  (The impact would be really bad, but this isn't likely to happen)
- Is the consequence low, but the likelihood high?
  (The impact wouldn't be that bad, but it is likely to happen).

Using a **risk matrix** like this will make it easier to determine **risk levels**.

It is important to adapt any tools to suit your individual business needs.

	Consequence			
Likelihood	**Insignificant**	**Minor**	**Moderate**	**Major**
Almost certain	High	High	Extreme	Extreme
Possible	Medium	Medium	High	Extreme
Unlikely	Low	Low	Medium	High
Rare	Low	Low	Medium	Medium

- Is the level of risk too much for the business to tolerate or can it be accepted?
- If the level of risk cannot be accepted, then something needs to be done about it (treat it).
- It is important to prioritise the treatment of risks based on the severity or level of the risk.

All of this information will enable your business to make informed decisions about the risk.

Checklist

- ☐ Method to determine consequence and likelihood
- ☐ Method to determine how much risk is too much
- ☐ Method to prioritise risks for treatment
- ☐ Method to record your risk assessment results and decisions
- ☐ Process to ensure the right people are involved when assessing risk.

Step 3 – Treat risk

What and why?

The aim of this step is to investigate options for treating any risks when it has been decided the level of risk is not acceptable to your business. Risks are treated by designing and implementing **controls** to reduce the severity of the consequence, or the likelihood of it happening. Or both!

The most effective treatment is to remove the hazard, or avoid the risk entirely. Often this is not possible in the transport industry, especially if the activity creating the risk is necessary for the business.

Some typical controls you can use include:

- removing the hazard
- changing the way the activity is carried out
- implementing policies and procedures
- introducing protective equipment.

How do you do it?

To develop and implement the most effective treatment, it is important to involve the right people when discussing treatment options. This includes those involved in the task or activity associated with the risk.

When developing a **risk treatment**, think about the **hierarchy of control**, as there are some types of controls that are more effective than others.

Level 1 (Most effective)	Eliminate the hazard
Level 2 (Introduces system controls to reduce risk)	Substitute the hazard with something safer
	Isolate the hazard from people
	Reduce the risks through physical controls
Level 3 (Relies on human behaviour and supervision)	Reduce exposure to the hazard by using administrative actions (e.g. training, policies, procedures etc.)
	Use personal protective equipment

Whichever treatment you choose, you should consider whether everything **so far as is reasonably practicable** has been done to reduce the risk and ensure safety. When deciding on a treatment, it is important to identify who is responsible for implementing it, and when it needs to completed.

Checklist

- ☐ Consult with the right people when developing a treatment
- ☐ Reduce the risk so far as is reasonably practicable
- ☐ Record treatment activities
- ☐ Method to determine if the treatment is working
- ☐ Process to communicate the actions required to implement the treatment.

Step 4 – Monitor and review

What and why?

The aim of this step is to make sure your risk management activities are doing what they were intended to do and to identify where any improvements can be made.

An important part of this activity is to make sure any controls that have been implemented are working properly and have not created any additional risks.

Additionally, regular check-ups on the methods used to identify hazards and assess risk need to be carried out to see if anything could be done better.

How do you do it?

There are a number of methods you can use to keep an eye on how things are going.

- When trying to find out how well a risk is being managed, it is important to encourage people to report back about how effective the control is.
- It is also important to regularly review any documentation or any other evidence (e.g. various vehicle technologies or other data) that might help you understand how the control is working.

Undertaking regular reviews of all risks and controls, including people with the authority to make decisions regarding risks and changes to work activities, will ensure better outcomes.

Similarly, the same approaches can be used to identify areas of your risk management system that could be improved.

Implementing a review schedule is a good way to systematically work through risk management processes and identify possible improvements.

Checklist

- ☐ Method to check the effectiveness of controls
- ☐ Procedure for how and when you will **monitor** your risks and controls
- ☐ Encourage people to make suggestions for improvement of your risk management system
- ☐ Formal process for investigating incidents, reviewing processes and identifying trends
- ☐ Actively communicate outcomes through training and education.

PART 3 – Examples

The following examples demonstrate how you can apply steps 1–4 of the risk management process to various scenarios that include common activities in the transport industry and its supply chain.

- It is important that you develop your own risk assessment tools and adapt them to suit your specific business needs, activities and risks.
- When determining the level of risk for each of these examples it is assumed there are currently no controls in place to keep the identified hazards in check.

Example 1 – Load restraint

A driver is transporting three large reinforced concrete pipes to a remote community in South Australia.

Step 1 – Identify hazards

A short distance into the journey the driver identifies that the load has shifted and he is unable to readjust the load himself. The driver reports this back to the business. He says he feels "it might be okay" to continue but sends through photos of the load to provide a clear picture.

Step 2 – Assess risk

On receiving this report, the owners ask the driver to "sit tight" while they assess the risk and decide whether or not the journey can continue. The owners immediately arrange a discussion with another driver who has previously done this delivery.

During that discussion they review the photos and report details, consider what could go wrong and the level of risk if they decided to continue the journey. It is decided the insecure load could fall or shift, creating several risks:

The scenarios in this section are examples of how risk management can be undertaken. They are intended to provide guidance to you, but are not to be taken as legal advice. It is your responsibility to assess the particular circumstances of your own business and develop a risk management system tailored to those circumstances.

Possible risk	Consequence		Likelihood	Risk level
	Type	Level		
The load could fall and cause:				
Injury to other road users	**Safety** – death or serious injury	Major	**Unlikely** - the route is in a regional area with a low volume of traffic	High
Damage to property	**Financial** – high cost **Reputation** – negative publicity	Minor	**Possible** – many of the roads are unsealed	Medium
The load may shift and:				
Move foreward into the cab	**Safety** – death or serious injury **Financial** – damage to vehicle	Major	**Possible** – unpredictable road conditions	Extreme
Cause damage to the freight	**Financial** – pay for damage **Reputation** – lost contract	Minor	**Unlikely** – due to the type of the freight	Low
Injure the person unloading	**Safety** – death or serious injury	Major	**Almost certain** – the load would be unstable	Extreme
Impact the performance of the vehicle	**Safety** – injury to driver **Financial** – damage to property	Moderate	**Possible** – the area has many hills	High

Step 3 – Treat the risk

Based on this information the owners decide that the risk is too high to continue the journey and inform the driver of their decision. The owners make contact with a transport depot near the driver's location and arrange for assistance in re-loading and securing the freight.

To ensure this does not happen again, the owners decide to investigate how and why this occurred. They identify that the load was not restrained properly by the loaders at the yard and that the driver had not checked the load before he left in accordance with the company policies. They decide to take the following actions:

- Loaders will receive additional training in restraining large indivisible loads
- The driver will be retrained in company policies and assessing risks
- All drivers will be reminded to check load restraint prior to commencing and during their journey
- Outcomes will be documented and communicated to all employees.

Step 4 – Monitor and review

To determine if their treatments are working, the owners communicate with all employees and encourage them to report any instances of loads they believe are not properly restrained.

The owners will monitor any reports of poorly restrained loads and undertake spot checks of load restraint techniques as part of their ongoing review activities.

Example 2 – Container transport

A business has a contract to pick up sealed shipping containers from a port and deliver them to a manufacturing facility. When exiting the port, the driver feels the load inside the container may have shifted and has concerns about the stability of the vehicle.

Step 1 – Identify hazards

The driver contacts their operations manager who organises for the customer to meet the driver so the container can be opened and the load investigated. It is identified that a large piece of freight was not properly restrained, and has moved within the container.

On receiving this information, the operations manager informs the owner of the business about the hazard and concerns that the poor load restraint technique is likely being used in the other containers they are transporting for this customer.

Step 2 – Assess risk

A meeting is convened to discuss the risks to the business of continuing to transport these containers. The following risks were identified:

Possible risk	Consequence		Likelihood	Risk level
	Type	Level		
The freight could move inside the container and cause:				
The vehicle to become unstable and difficult to handle	**Safety** – the vehicle could have an accident or rollover **Safety** – injury to driver **Financial** – loss of income, repairs, downtime	Moderate	**Possible** – the route is on main roads	High
Damage to the freight	**Financial** – high cost **Reputation** – negative publicity	Insignificant	**Almost certain** – freight in the container that was opened had moved	High
Injury to the person unloading	**Safety** – death or serious injury	Minor	**Possible** – the load would be unstable	Medium

Based on this information the business owners contact the customer and inform them the risk will be too high for them to continue transporting these containers unless they can be sure the freight inside is properly restrained.

Step 3 – Treat the risk

Before agreeing to continue with the contract, they would require the following actions to be taken:

- The customer must ensure their overseas suppliers understand and are able to comply with Australian load restraint requirements
- The contract is amended to include a requirement for the customer to provide photographs of the freight and how it is restrained inside the container on request
- Arrangements are put in place to conduct regular spot checks of containers
- The outcomes are recorded and communicated to all staff.

Step 4 – Monitor and review

To determine if the control they have put in place is working, the owners encourage all drivers to report any instances where they feel a load may not be properly restrained inside a container.

Example 3 – Fatigue

A driver from a local transport company has been waiting to be loaded for a long period of time and is concerned he may run out of hours.

Step 1 – Identify hazards

The driver contacts their operations manager to let them know there have been delays in loading and they are going to run out of hours. The operations manager has concerns that this seems to be happening quite often at this facility and decides to raise it with the owner of the business.

Step 2 – Assess risk

The owner convenes a meeting with the operations manager and two drivers that are familiar with the facility's loading practices. During the meeting the group identifies that these delays create a number of risks, and it is decided a risk assessment must be done so an informed decision can be made about how to approach the situation.

Possible risk	Consequence		Likelihood	Risk level
	Type	Level		
Delays could impact driver's work and rest hours causing:				
A driver to run out of hours	**Safety** – the driver may have to rest where unsafe **Financial** – send another driver to finish the task or pay for accommodation **Reputation** – unable to meet customer requirements	Minor	**Possible** – there always seem to be delays at this site	Medium
Fatigue	**Safety** – driver could fall asleep and have an accident causing death or serious injury **Financial** – property damage **Financial** – increased insurance and/or WorkCover premiums **Reputation** – negative publicity	Major	**Possible** – driver is unable to rest because they have to wait in line and inch forward to maintain their place in the queue	Extreme
Breaches of the HVNL	**Financial** – fines/penalties **Reputation** – being seen as a non-compliant operator	Minor	**Possible** – driver's records will show non-compliant work and rest hours	Medium
Delays could impact on delivery times causing:				
A driver to speed	**Safety** – could lose control of the vehicle and cause an accident **Financial** – property damage **Financial** – fines/penalties **Financial** – increased insurance and/or WorkCover	Moderate	**Possible** – driver may increase speed to make up lost time	High
Loader/ unloader to cut corners	**Safety** – could cause injury or harm **Safety** – may fail to secure the load properly	Moderate	**Possible** – undue haste to make up time	High
Inability to meet customer expectations	**Financial** – loss of contracts **Reputation** – not reliable	Insignificant	**Possible** – contracts up for renewal	Low

The group identifies that these risks could impact the business's safety, finances, legal obligations and reputation.

Step 3 – Treat the risk

It is decided the business will not accept the level of risk associated with delays in long wait times for loading/unloading and will take the following actions:

- Immediate action – determine if the driver has access to approved facilities to rest, and if not, send a replacement driver to relieve
- Implement a policy for drivers to notify their operations manager if they have been waiting longer than one hour to be loaded/unloaded
- The operations manager will investigate the cause of the delay and reschedule the driver if it is necessary
- The business owner will also make contact with their clients to advise them of their policy regarding driver loading/unloading times
- The business owner will arrange a meeting with the distribution centre to discuss possible improvements to scheduling loading/unloading times and suitable rest facilities
- The decisions are documented and communicated with all staff.

Step 4 – Monitor and review

To ensure their controls are effective, the business decides they will:

- monitor for reports of excessive loading and unloading times at the distribution centres
- check a sample of electronic reports to identify how long drivers have spent at the distribution centres
- keep in touch with their drivers to identify issues.

Part 4 – Definitions

Term	Description
Consequence	The outcome or impact of an event.
Controls	The things put in place to eliminate, modify or minimise the risk.
Hazard	Anything that has the potential to cause harm or loss.
Hierarchy of Control	Categories of risk controls ranked from the highest level of protection and reliability to the lowest.
Likelihood	The chance that an event will occur and the identified consequence could actually happen.
Monitor	Checking risk controls that have been implemented to ensure they continue to have the desired effect.
Review	Ensuring the system that has been put in place remains effective.
Risk	The possibility that harm or loss might occur as a result of a hazard or event.
Risk assessment	The process of identifying, analysing and evaluating risk.
Risk level	A level applied to a risk based on the potential consequence and likelihood of the risk occurring.
Risk management	A formal process for identifying, understanding wand controlling risks that have the potential to disrupt or impact on safety.
Risk management framework	Documented policies, procedures, tools and work practices that effectively and consistently manage risk and improve safety.
Risk matrix	An assessment tool used to consider the interaction between consequence and likelihood to determine the level of risk.
Risk tolerability	The acceptable level of risk for a business.
Risk treatment	The process of developing and implementing controls to manage risk.
Safety Management System (Also known as an SMS)	A set of resources and activities integrated in a business that all work together efficiently as a system to help improve: • safety policies • safety risk management • safety assurance • safety promotion.
So far as is reasonably practicable	Anything that is known, or reasonably ought to be known, about a risk and ways of eliminating or reducing the level of risk.

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