NHVR

AUSTRALIAN Grape & Wine

SOUTH AUSTRALIAN WINE INDUSTRY ASSOCIATION

WINE INDUSTRY

Code of Practice

A registered Industry Code of Practice under Section 706 of the Heavy Vehicle National Law

DECEMBER 2024

FOREWORD

Heavy vehicles used in the grape and wine industry are regulated by the *Heavy Vehicle National Law* (HVNL), which applies to all vehicles over 4.5t in all states and territories, except Western Australia and the Northern Territory. The HVNL has many detailed requirements for heavy vehicles such as vehicle standards, mass and dimension limits, loading requirements and loading performance standards and access requirements. It also imposes a duty on each party in the "chain of responsibility" (CoR) for a heavy vehicle. This duty, called the "Primary Duty", applies to businesses that operate and utilise heavy vehicles in the grape and wine industry.

The Wine Industry Code of Practice (the Wine Code) is a Registered Industry Code of Practice (RICP), developed in accordance with the "Guidelines for Preparing and Registering Industry Codes or Practice"[1] published by the National Heavy Vehicle Regulator (NHVR) under section 706 of the HVNL.

The Wine Code has been developed by the South Australian Wine Industry Association Incorporated (SAWIA - the wine industry peak body in South Australia) in partnership with Australian Grape and Wine (AGW) and the National Heavy Vehicle Regulator. During development of the Wine Code, SAWIA consulted with state and regional wine associations as well as directly with wine industry stakeholders. Other stakeholders such as local government, transporters and industry suppliers also provided input.

A draft of this Code of Practice was released for public consultation on 31 October 2024 and was registered by the NHVR on 20 December 2024.

To inform future development of the code, the NHVR relies on advice from industry participants and welcomes your feedback, addressed to The Manager, Codes of Practice at codes@nhvr.gov.au

ABOUT INDUSTRY CODES OF PRACTICE

What is a Registered Industry Code of Practice?

An industry code of practice is information, for a particular industry, about hazards and risks and ways to remove or reduce those risks. It is called an industry code because members of the relevant industry have had input into the code, and because it reflects what the industry knows and does.

Under the HVNL, the NHVR may register a code of practice that complies with its published guidelines. These guidelines describe the process for developing a code and the requirements for the content of a code. A key requirement is that the code promotes the safe use of heavy vehicles through the identification of known hazards and risks and recommendations of control measures.

How is a code of practice developed?

Typically, an industry group indicates the need for a code of practice and works with the NHVR to identify representatives from that industry who can contribute to the code's development. Industry members provide content for the code and give feedback as the document is produced. The NHVR drafts the document and manages the consultation process. Before a code can be registered, it is published for public consultation, then assessed by a panel of industry experts. If approved, it is published on the NHVR's website.

What is the purpose of a code of practice?

Codes of practice inform an industry about safe practice. Although the HVNL imposes a Primary Duty upon parties in the CoR to ensure safety, it doesn't specify exactly what they are to do. Each business has to work this out for themselves, according to their own circumstances. Codes are not exhaustive, but nevertheless help fill in some of those gaps by alerting CoR parties to relevant hazards and risks and providing recommendations about ways to manage those risks. Codes help businesses that might not otherwise be aware of what is expected of them to find practical ways to improve safety. The value of a registered code is that it can provide consistent, authoritative information and guidance.

1 www.nhvr.gov.au/files/202202-0460-guidelines-for-industry-codes-of-practice.pdf

What is the Primary Duty?

The Primary Duty requires a party in the CoR to ensure, so far as is reasonably practicable, the safety of its transport activities in relation to a heavy vehicle (See s26C, HVNL). Specifically, this is a duty to eliminate public risk so far as is reasonably practicable, and if it is not reasonably practicable to eliminate a risk, then to minimise the risk.

Public risk includes a risk to drivers, passengers, other road users and members of the public in the vicinity of roads and public places. It also includes the risk of damage to property, including vehicles and loads, damage to road infrastructure and harm to the environment.

A party's "transport activities" are anything it does that is associated with the use of a heavy vehicle on a road. The term would include, for example, business practices, facilities maintenance, human resource management, policy development and review, safety systems, and board decisions, as well as the activities typically associated with heavy vehicles such as loading, maintenance, scheduling etc.

More information about the Primary Duty can be found on the NHVR website.[2]

What is Executive Due Diligence?

If you are an executive of a business that is a party in the CoR for a heavy vehicle, you have a duty to exercise due diligence to ensure the business complies with its Primary Duty. If the business fails to do so, then you could be held personally liable for a breach of s26D HVNL. The term "executive" includes an executive officer, a manager or another person who takes part in the management of a business. It also includes a director of a company and a partner in a partnership.

Exercising due diligence requires you, among other things, to actively acquire and maintain up-to-date knowledge about conducting transport activities safely. If this code of practice is relevant to your business's activities, then as an executive you have a duty at least to familiarise yourself with its contents. The code should help you ensure that your business implements the safety systems necessary for it to comply with its Primary Duty.

More information about the Executive Due Diligence Duty can be found on the NHVR website.[3]

What does "reasonably practicable" mean?

"Reasonably practicable" means actions that are 'reasonably able to be done in relation to the duty, weighing up all relevant matters'.

Doing what is "reasonably practicable" is the standard for complying with the Primary Duty. Put simply, a CoR party must implement controls that are proportionate to the overall safety risk. Generally, the more potentially dangerous something is, and/or the more likely it is to happen, the more time, effort and resources should be put into preventing the risk from occurring, or to minimising injury or damage if it does occur. However, this does not mean that something which amounts to a low overall safety risk can be ignored or only partly treated, particularly if there are suitable and applicable controls available.

When a court assesses whether a party has done what is reasonably practicable, it takes account of what the party knew, or should have known about hazards, risks, risk assessments and controls. (This is where a registered code of practice becomes relevant.) A court also considers whether suitable, effective control methods were available, and the cost of implementing controls. Cost is the last factor that a court would consider. A party is not expected to implement a control if its cost would be grossly disproportionate to the risk, but cost will not itself be an excuse for failing to implement a control. There will be some risks that are so serious that if there are no available, effective, or affordable controls, then the party will have to avoid the action that creates the risk or find another way to do it.

See the glossary for the definition of "reasonably practicable" or follow the links to find more information about the term on the NHVR website,[4] or to read Regulatory Advice[5] about the topic.

Sharing the duty between CoR Parties

The underlying principle of chain of responsibility is the recognition that many different parties influence the safety of a heavy vehicle on a road. This is why the law imposes a duty on each party in the CoR. The HVNL also states principles about how the duty is shared (see s26A & s26B, HVNL). Because CoR parties for a heavy vehicle each have different functions, and have different degrees of control over what happens, they aren't all expected to do the same things, or to go the same lengths to ensure safety, but each of them must still do what is reasonably practicable for them each to do.

It's important to understand that sharing the Primary Duty does not mean dividing it into smaller portions. As a CoR party, you can't rely on what another party should be doing to justify your business doing less. Each party still has to apply a proportionate amount of time, effort, and resources, based on the function it performs, the public risk created by its activities, and its capacity to control, eliminate or minimise the risk.

Parties should work together to identify and assess risks, and to understand what opportunity each of them has to eliminate or minimise a risk. In some circumstances the most practicable control will be one that only one party has the ability to implement. Failing to pay attention to or to act on concerns raised by other parties may be a breach of the Primary Duty.

Does my business have to *comply* with a code of practice?

Codes of practice are recognised by courts, but a code is not a law and doesn't create new stand-alone obligations.

Parties in the CoR already have a Primary Duty. This is the legal obligation they must comply with, not the code itself, but a code will help guide them in meeting their Primary Duty obligations. Firstly, it will help them identify hazards and risks in their business. Secondly, it will recommend control measures to manage those risks.

There is no single blueprint for how all businesses must meet their Primary Duty. Once it has identified relevant hazards and risks, a business could implement some or all of the controls a code recommends, or it could implement different controls altogether. It could also use a combination of controls from the code and from elsewhere. So long as a business is doing what is reasonably practicable to eliminate or minimise risks to public safety from its activities to do with heavy vehicles, it will likely have met its Primary Duty obligations.

2 www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility/primary-duty
3 www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility/executive-due-diligence-duty
4 www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility/the-primary-duty/primary-duty-definitions
5 www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility/regulatory-advice/reasonably-practicable

Does a code of practice identify every single hazard and risk?

No, a code of practice is not exhaustive. It should identify the main hazards and risks known to an industry, but it may omit some hazards and risks that are not widely known. As a CoR party, your duty is to identify and manage all hazards and risks to public safety associated with your heavy vehicle transport activities. This may mean you have to undertake additional enquiries to properly identify and assess additional risks and hazards. For hazards and risks not mentioned in the code, you still need to do what's reasonably practicable to eliminate or minimise them.

Does every CoR party have to do the same thing?

What is reasonably practicable for one business won't necessarily be reasonably practicable for another. Many factors affect risk and the potential for injury or damage. Differences between businesses will mean different risk profiles, and variation in how practicable it would be to implement control measures.

There will be some control measures that are so effective and practicable that every business should be using them. Other measures might only be required for operations that cause the greatest risk. Some control measures might be implemented to a different degree or in different way in different businesses e.g., an on-line training course, in-person training by a co-worker, or a TAFE qualification.

A business has to make its own assessment of the number and kinds of controls it needs to implement in order to reach the threshold of doing what is reasonably practicable. It needs to make this assessment based on what an ordinary reasonable member of the community would think is proportional, not based on its own opinion or interests.

How will a court use a code of practice?

If a CoR party is charged with a breach of the Primary Duty, a court may have regard to a registered code of practice as evidence of the party's safety knowledge. It could admit the code as evidence of what the CoR party knew or ought to have known, about hazards, risks, and controls in a particular industry.

In other words, the party facing a charge may then be assumed to know everything that was in that code of practice. They would not be able to argue that they were not aware of a hazard, the risk it presented or measures that could be used to eliminate or minimise the risk, if that information was contained in a registered code.

However, as noted above, the party would not have to show that it had implemented every control recommended by a code. It would only need to show that it had implemented sufficient suitable controls to meet the standard of reasonable practicability, whether these were control measures recommended by the code, other measures not referred to in the code, or a combination of both.

Whether or not a business adopts controls recommended by a code, it's critical that it is aware of the contents of a code of practice, in order to understand the safety standard that is expected.

ABOUT THE WINE CODE

The scope of the Wine Code is any business in the wine industry in an HVNL jurisdiction, that operates, uses or works with heavy vehicles, including grape growers, harvest operators, vineyard contractors, wineries, loaders, unloaders, depot managers and transporters.

The Wine Code provides guidance about complying with section 26C of the HVNL[6], but it does not provide express advice about compliance with the detailed requirements in the HVNL that apply to heavy vehicles used in the wine industry. For more information on topics such as vehicle standards, mass and dimension limits, load restraint, access requirements and fatigue management, refer to information on the NHVR website.

The Wine Code is regarded as a supplementary code because it does not address all hazards and risks associated with the use of heavy vehicles on a road. It should be read in conjunction with the HVNL, the Master Code of Practice (MCP), the Load Restraint Guide, WHS law, relevant Australian Standards, and other industry specific guidance. To be clear, all of those materials may be relevant in a consideration of whether a CoR party had done what was reasonably practicable to ensure safety and to eliminate (and, to the extent it was not reasonably practicable to eliminate, minimise) public risks.

The MCP is a general code written for the whole of the heavy vehicle industry. Where a topic covered by the Wine Code overlaps with content in the Master Code, you should consider all the guidance that is relevant.

The Wine Code does not cover transportation of agricultural vehicles, machinery, or equipment.

Who is a party in the CoR?

A person or business is a 'party in the Chain of Responsibility', when they perform any of these functions in relation to a heavy vehicle:

- employ a heavy vehicle driver (employer)
- engage someone to drive a heavy vehicle under a contract for services (prime contractor)
- direct the control and use of a heavy vehicle (operator)
- schedule the transport of goods and passengers in a heavy vehicle, or schedule a driver's work and rest hours (scheduler)
- consign goods for transport by a heavy vehicle (consignor)
- receive goods delivered by a heavy vehicle (consignee)
- pack or assemble goods for transport in a heavy vehicle (packer)
- manage premises where five or more heavy vehicles are loaded or unloaded each day (loading manager)
- load a heavy vehicle (loader)
- unload a heavy vehicle (unloader)

(Full legal definitions of each term can be found in the Glossary)

Individual employees may be parties in the CoR, but it is the businesses that employ them that is expected to take the lead in ensuring that the Primary Duty is satisfied. This is because employers generally have more control and influence over hiring, training, work practices and resources.

It is critical that you identify whether your business is a party in the CoR, but it is not essential to determine which party it is. This is because all CoR parties have the same Primary Duty. The HVNL does not set out different duties for each party.

For more information about the parties in the CoR see: www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility/the-primary-duty/parties-in-the-cor.

Who are the CoR parties in the grape and wine industry?

In the wine industry, parties in the CoR would include businesses such as:

- vineyards
- wineries
- transport operators
- vineyard and harvest contractors

Grape growers are likely to be a Consignor, sending grapes to a winery for crushing. If a grape grower or a contractor such as a grape harvest operator or vineyard contractor loads the grapes into grape bins or trucks, they are likely to be a Loader.

Most wineries are both Consignees and Consignors of goods in heavy vehicles: they receive wine grapes for crushing and grape juice for fermentation; they consign wine, bottled or in bulk, for delivery or export. If they, or another business pack wine bottles into boxes or onto pallets they would also be a Packer.

Larger wineries where five or more heavy vehicles are loaded and unloaded each day would be considered a Loading Manager.

Scheduling is often performed by staff from different businesses working in tandem, e.g., winery schedulers, logistics staff and operations managers. Each of the respective businesses would be a Scheduler.

Businesses that send, transport or receive grapes or finished wine are also CoR parties.

In most situations, there will be multiple parties whose activities are connected to the same heavy vehicle or vehicles. Principles about the Primary Duty make clear that parties in the CoR share responsibility for ensuring safety. Having more that one party with a duty in relation to the same vehicle does not diminish the duty of a party. Each of them must still do what is reasonably practicable for them to do, to ensure safety.

What is the driver's role?

An employed driver is not a party in the CoR and the Primary Duty does not apply to them. However, CoR parties cannot uphold their Primary Duty without the involvement and cooperation of drivers. Drivers must be trained in systems and procedures and will be involved in the implementation of many of the controls recommended in this code. They should also be encouraged to provide feedback to their employers – and other parties in the CoR – about the effectiveness of control measures.

How each party contributes to overall safety

Heavy vehicle safety is affected by decisions that are made and things that are done, well before the driver gets into a vehicle, and at many points along the way. Those many factors contribute to overall safety, but no one person controls all the factors. To eliminate or minimise risks arising from heavy vehicle transport activities requires a total system, with different parties contributing different elements.

For example, to minimise the risk of grape spillages on public roads, that system may include the following parts:

- engaging a transport operator that is familiar with and has prior experience with the transportation of wine grapes, including how wine grapes move when being transported
- grape growers and grape harvest contractors or vineyard contractors understanding the fill level of each type of grape bin or truck to be used
- grape growers and grape harvest contractors or vineyard contractors understanding how different grape varieties and method of picking affect juiciness and therefore the fill level
- using lids on grape bins when appropriate
- educating workers involved with filling grape bins or trucks in the vineyard and
- using strapping and baffles for tip trailers to secure grapes.

6 www.legislation.qld.gov.au/view/whole/html/current/act-2012-hvnlq

USING THE WINE CODE – A PRACTICAL GUIDE

Key components of risk management are:

1. Hazard identification
2. Risk assessment
3. Selection of control measures
4. Implementation and training
5. Systems to monitor and report on the effectiveness of controls
6. A process for periodic review of the system and a process for responding to incidents, lead and lag indicators, and new risks

Registered codes of practice will help you to identify hazards, assess risks, and choose suitable controls. A system that integrates all the components of risk management into a single system can be described as a safety management system (SMS). Such systems are prescribed for some transport sectors and represent best practice for the heavy vehicle industry as well.

For guidance on the principles of risk management, the NHVR recommends *AS/NZS ISO 31000:2018 Risk Management — Principles and Guidelines*. You might also find *AS/NZS ISO 45001: 2018 Occupational Health and Safety Management Systems* contains some useful guidance on managing your safety risks.

More information about risk management is available from Safe Work Australia, or your state or territory's workplace health and safety regulator.

On the NHVR website, you will find many resources which will help you to develop, document and implement an SMS.

1 Identifying hazards and risks (see Table 1)

Consider all the hazards and risks in the Wine Code to see whether they apply to your transport activities. This includes considering whether your activities contribute to risks affecting others. Some hazards and risks will be present in some businesses, but not in others, according to their circumstances.

Codes of practice document known hazards and risks in an industry, but they may not capture every one. As a party in the CoR, your duty is to eliminate or minimise all risks to public safety associated with your transport activities, so you also need to look for hazards and risks besides those mentioned in this code.

2 Risk assessment

Assess the likelihood and seriousness of each risk that you identified whether from the code, or from your own investigations. The same hazard may create more or less risk in one business than another, because of differences in the way they operate, their location, staffing, equipment or work hours.

3 Selecting control measures (see Table 2)

You should choose the controls, or combination of controls, that will eliminate each risk that has been identified, or where it is not reasonably practicable to eliminate a risk, to minimise it so far as is reasonably practicable. These controls may be from the Wine Code, or they may be other controls from outside the code.

Choose controls that will likely be effective in your business. It may be necessary to use a combination of controls of different kinds. For example, to deal with one risk, you may need to purchase or adapt equipment, establish or change procedures, and train employees. Another risk may be eliminated by assigning employees to a new task and hiring a new staff member.

Table 1. Example – Identifying hazards and risks (see section on page 7)

Consider each hazard in the code to see if it applies to your business. If it does, assess the risk it creates.

	Company A Vineyard Contractor Working across multiple sites loading chaser bins in vineyards	Company B Transport Operator Contracted to provide transport services to multiple vineyards and transport grapes to several wineries	Company C Large Winery Receiving multiple deliveries of grapes from numerous transport operators
Risk			
Hazard	Yes - High	No	Yes - Medium
Hazard	No	Yes - Low	Yes - High
Hazard	Yes - Medium	Yes - Medium	No
Hazard	Yes - High	Yes - High	No
Other Hazard	High	?	?
Other Hazard	?	?	Low
Risk			
Hazard	Yes - Low	Yes - Medium	Yes - High
Hazard	Yes - Medium	Yes - High	Yes - High
Other Hazard	?	?	?
Risk			
Hazard	No	No	Yes - Low
Hazard	No	Yes - Low	No
Hazard	Yes - Medium	No	No
Other Risk			
Other Hazard	?	?	?
Other Hazard	?	?	?

Different businesses will have different hazard and risk profiles.

A code of practice may not identify every hazard. Some businesses will have extra hazards.

A code of practice might not identify every hazard and risk associated with your business. It is up to you to identify and manage each hazard and risk.

Table 2. Example – Selecting control measures (for each hazard) (see section on page 7)

Risk	Company A Working across multiple sites loading chaser bins in vineyards	Company B Contracted to provide transport services to multiple vineyards and transport grapes to several wineries	Company C Receiving multiple deliveries of grapes from numerous transport operators
Hazard	Yes - Medium	Yes - Medium	No
1. Code control	✓		
2. Code control		✓	
3. Code control	✓	✓	
4. Code control	✓		
5. Code control	✓		
6. Alternative control		✓	
7. Alternative control		✓	
Necessary control	1, 3, 4, 5	2, 3 and alternative controls	

If a hazard doesn't exist in a business, then the controls aren't required. (Controls will be necessary for other hazards.)

Controls that are effective for one business might not suit another.

Each business must put in place the control/s that will eliminate or minimise risk from each hazard to an acceptable level.

Co-operating to implement controls

In many situations, the best way to manage a risk will be for a number of parties to implement complementary controls. Because different parties do different things, at different times and places, they don't all have the same opportunity to manage each risk. For example, one business controls things at the start of a trip; another business only sees the end of the journey. Some control measures happen weeks in advance, monitoring happens during operations, and feedback is always after the fact.

You can collaborate with your business partners to work out which control measures each of you can implement, to create a more efficient and effective risk management system. If there is some doubling up in such a system, it should give you greater confidence. However, you should be cautious about relying entirely on other parties' control measures, unless you know or can assure yourself that the control measures are in place, are being used, and are effective.

(See also, Executive Due Diligence, p4 and Sharing the duty between CoR parties, p4)

Is it compulsory to use control measures recommended in the Wine Code?

No, you do not have to use every control recommended by the Wine Code. You only need to implement sufficient controls to ensure safety so far as is reasonably practicable. You can also use different controls altogether - ones not mentioned in the code – if you can show that they eliminate or minimise risk just as effectively.

A control measure from outside the Wine Code might be more readily available, or more effective in your business because it suits your circumstances better. You can also use a combination of controls from the Wine Code and other controls. So long as you are eliminating or minimising each risk, to the required standard, then you are meeting your duty. The purpose of the Wine Code is to assist you to do this, the code does not create a new legal obligation.

If available controls will not be sufficient to eliminate or minimise a risk, you must find another way to achieve the same outcome, or cease carrying out the activity that creates the risk.

Other sources of information about hazards, risks and controls

You can find more information about managing risk by referring to codes of practice or other publications produced by safety regulators, such as Safe Work Australia and its state equivalents, or in relevant Australian and International Standards (AS or ISO).

Your industry and its networks may be another source of advice and data that will help you. An example of organised information exchange is the "Safer Together" initiative in the oil and gas sector, whose regular working groups develop bulletins and safety alerts for members and subscribers.

Currency of technical standards and references

References in this code to technical standards and information resources were current at the time of publication. If you refer to any of them, you should ensure that you are consulting the current version.

4 Implementation and training

Once you have identified hazards, assessed each risk, and determined the appropriate control measures, you need to ensure that they are implemented in your business. It is critical that executives are involved in the process, as this sits squarely within their due diligence duty. They must be aware of the outcome of the assessment process, and should be leading, or at least, supporting the process of integrating control measures into the processes and systems of the business.

To implement new controls, your business will have to review its existing policies, procedures, equipment, premises, staffing, contracts, and business practices and make appropriate updates. If it is not possible to implement all suitable control measures immediately, then you should prioritise measures that eliminate or minimise the most serious risks. Executives should be involved in decisions about which control measures will be implemented, and when, and ensure that resources are available to allow them to be put in place.

It is recommended that you document the assessment process, including its scope and timing, the personnel involved, your sources of information and the reasoning supporting each decision. You should also document the decisions, timing, costs, and other actions relating to the implementation of each control measure. These records will be useful to your business in future.

Training will be an essential component of implementing new measures. In some cases, training will itself be one of the control measures, but training about all the new measures will be required. Develop all-staff training to introduce the overall changes, including an explanation of the risk assessment process and the business' legal obligations, so that staff understand the importance of the training.

Identify and deliver specific training for staff according to the functions they perform, where and how they work, and the equipment and resources they use. Include sales, human resources, and public relations staff in the training program. Deliver training in a way that suits the working environment and gives trainees enough time to learn and adapt. Provide training support during the change period and ensure that staff know how to access training documentation.

You should also identify training needs of your business partners and clients. In some cases, e.g., when you change procedures at your premises, it may be necessary to include their employees in on-site training with your own employees. Otherwise, it may be sufficient to know that those employees have received comparable training. For your clients, it may be sufficient to provide written information or update web content.

> **Note:** Identifying and fulfilling training needs is part of a business' transport activities.

5 Monitor and report on effectiveness of controls

You will need a way to monitor whether the control measures you implement are actually effective. If you have already been monitoring appropriate safety indicators, you should be able to compare outcomes after the controls have been implemented and assess whether they are improving your business' safety.

Care needs to be taken in choosing what you measure or monitor. Some measures based on outcomes – e.g., the number of crashes – may not provide useful insights. For example, there may be long periods when by good fortune there are no crashes despite the existence of a hazard that could cause them, so this measure would provide no information.

Use what you learned from the risk assessment process, and your detailed knowledge of your own business, to identify indicators that will inform you whether the measures are being implemented consistently across your business, and what effect they are having on known hazards and risks. You may need to combine different kinds of information and information from several sources to achieve this, e.g., driver surveys, absenteeism rates, engine data, technical reports, near misses, maintenance records, customer complaints, audit reports etc.

It may be possible to perform continuous monitoring. If not, you should establish a monitoring cycle that's appropriate for the level of risk associated with your activities. Decide what should be considered normal variation in the indicators that you measure, and what changes warrant further investigation or intervention.

6 Review

There are a number of events that should prompt you to review your risk management system. Most importantly, it should be reviewed if your monitoring demonstrates that the measures in place are not effective at eliminating or minimising risk.

Other events that might trigger a review include:

- a serious incident or near miss,
- major changes to business operations e.g. new client, upsizing, new staff etc.
- emerging hazards and risks
- changes to the physical or regulatory environment
- concerns raised by employees

You should also establish a cycle of periodic review. A combination of minor and incremental changes over time can escape notice but create a substantially different risk environment, even in a short period of time. Regular review allows a business and its executives to confirm that systems are still fit for purpose. They are also an opportunity for executives and staff to re-focus on safety and avoid complacency. The frequency of review should depend on the overall risk associated with your business. If the risk is higher, then reviews should be more frequent.

Your business may have the resources to conduct its own review. You may also consider engaging external experts from time to time, or to review some parts of your system. The review process should follow the same steps as the initial assessment, and the same requirements for implementation and documentation apply. If the outcome of the review is that changes should be made, then training should be developed and delivered for employees, business partners and clients (see above.)

OVERVIEW OF RISKS IN THE GRAPE AND WINE INDUSTRY

The grape and wine industry faces unique challenges related to the movement of raw materials during vintage (harvest season) and the transportation of finished products throughout the year. These challenges include managing the transportation of grapes – solid in form but prone to producing liquid during transit – and operating under time pressures to harvest and deliver grapes promptly to crushing facilities.

The wine industry is distinctive and multifaceted, transforming wine grapes into a high-value product marketed and sold domestically and globally. A crucial component of the wine industry is its reliance on the heavy vehicle sector for transporting grapes, finished products (in both bottled and bulk forms), and essential supplies. These transport activities occur on public roads across Australia.

Transportation practices in the industry vary significantly, influenced by differences in operational size, distance travelled, equipment and vehicle usage, and the complexity of operations. Parties in the wine industry supply chain have duties under the HVNL, however, it is not always apparent to businesses in the wine industry that they are parties in the CoR, or how they can influence the safe conduct of transport activities.

During vintage, wineries often receive grapes from a large number of growers, utilising diverse heavy vehicle combinations. Grapes may be transported over long distances, including interstate, adding to logistical complexity. The need to harvest grapes within narrow timeframes to protect quality intensifies these challenges, especially when equipment failures occur, potentially leading to delays and risks of fatigue.

Employee numbers expand significantly during peak periods, during vintage in particular, and the workforce can include local employees, working holidaymakers, young workers, external contractors, and individuals from non-English-speaking backgrounds. Many of these employees lack prior experience in the wine industry and most have only a limited understanding of CoR requirements.

Additionally, formal and informal arrangements among industry stakeholders can create assumptions about others' awareness of obligations and risk management practices for transport activities. To address these complexities, tailored controls specific to the wine industry are essential, which is why this Wine Code has been developed.

ACTIVITIES, HAZARDS AND CONTROLS

The sections above contain guidance on use of this code and on managing safety in your transport activities. The controls below are suggested actions to assist you to ensure your activities are safe.

The Wine Code provides guidance only. Your responsibility is to assess each circumstance on its own merits to ensure that so far is reasonably practicable, public risk is eliminated, and, to the extent it is not reasonably practicable to eliminate such risks, they are minimised. As noted above, that may require additional steps to those suggested below.

Many of the controls require action to be taken by workers, including drivers. These workers must be properly trained, supported, and empowered to make decisions and take actions that ensure safety within the course of the duties they perform on your behalf. Your responsibility is to support and instruct your workers, with good equipment, high-quality training and effective operating processes, so that they can do their job for you with confidence that they are working safely.

1 Activity: Working with other businesses

1.1 Hazard: Business lacks information to ensure heavy vehicles operate safely

1.1.1 **Control: Consult with other businesses to identify the information that each business needs to ensure that heavy vehicles are operated safely.**

This can include CoR Parties showing they have systems in place which ensure heavy vehicles are operated safely.

1.1.2 **Control: For each kind of information, assess how and when it should be captured, recorded, and shared.**

1.1.3 **Control: Establish and use a method to share relevant information with other businesses, at the appropriate time.**

Examples of relevant information:
- Gross and tare weights of each heavy vehicle
- Expected yield of vineyard, based on previous loading records of variety and weight
- Winery delivery times or windows and parameters or conditions for delivery
- Expected processing time per volume and variety, based on past records
- Experience of harvest operator
- Drivers' start times and maximum hours.

Relevant information may need to be shared between CoR Parties including vineyards, transport operators, vineyard and harvest operators, and wineries.

1.2 Hazard: Limited access to real-time data about the progress of vintage

1.2.1 **Control: Establish a method that multiple parties can use to share information in real time, such as a mobile application or by sending information to a central point for updating and dissemination via multiple channels.**

Examples of real-time information that will help businesses manage scheduling and delays:
- Grape receival information each time grapes move to another party throughout the chain
- Vehicle arrival and departure times, number of vehicles in queue at any place
- Time loaded, weight at leaving vineyard, variety of grapes
- Volume and mass of grapes received (using vehicle tare and gross weights)
- Volume and mass of grapes awaiting processing
- Weather and traffic conditions, on-road hazards
- Time until a driver needs to rest or stop driving.

1.2.2 **Control: Establish an escalation process to enable timely interventions when things don't or can't go to plan.**

The escalation process should be agreed in advance, and should be effective despite the time, date or location of the disruption. It should include contact details of persons with the authority, information, resources and ability to respond.

Examples of situations where escalation processes would be useful:
- When an unsuitable vehicle arrives at a location for loading (see Section 4.1)
- When the breakdown of equipment causes delays at either a loading or unloading location (see Section 8.2)
- When turnaround times at a winery cause disruption to transport schedules (see Section 8.6)

- When overloaded vehicles arrive at a location for unloading (see Section 11.2).

It also may be necessary to establish an escalation process to manage other situations when things don't go to plan.

1.3 Hazard: Limited access to information about past operations to assist planning

1.3.1 Control: Agree with other parties to retain and share information about past harvests to enable planning of future harvests that will ensure that heavy vehicles are operated safely.

2 Activity: Engaging transporters, harvesters, and vineyard contractors

2.1 Hazard: Transporter doesn't know how to safely operate heavy vehicles

2.1.1 Control: Choose transport operators with a good reputation and experience in the industry.

2.1.2 Control: Consult with the transporter in advance and establish clear expectations of what each of you will do, how you will communicate, and what should happen when there are delays or other contingencies.

2.1.3 Control: Undertake to provide feedback after the work is done and request the same of the transporter.

2.1.4 Control: Document the agreement in writing.

Agreements should add clarity about how the work is undertaken and should not be designed to absolve or limit the responsibility of any party to discharge their Primary Duty.

2.1.5 Control: Consider using a transport provider accredited under the National Heavy Vehicle Accreditation Scheme (NHVAS).

Scheme participants must have assurance systems in place for one or more NHVAS modules i.e., mass management, maintenance management and/or fatigue management. Further information about NHVAS accreditation can be found on the NHVR website.[7]

2.2 Hazard: Harvester/vineyard contractor lacks heavy vehicle safety know how

2.2.1 Control: Choose a grape harvester/vineyard contractor with a good reputation and experience in the industry.

2.2.2 Control: Consult with the harvester/vineyard contractor in advance and establish clear expectations of what each of you will do, how you will communicate, and what should happen when there are delays or other contingencies.

2.2.3 Control: Undertake to provide feedback after the work is done and request the same of the contractor.

2.2.4 Control: Document the agreement in writing.

Agreements should provide clarity about how the transport task is carried out, and what is required to do that safely. Agreements must not be designed to absolve any party of their Primary Duty, or to minimise or limit that duty.

2.2.5 Control: Provide training to grape harvest contractors and vineyard contractors about how their actions and inactions can affect the safe operation of heavy vehicles.

2.3 Hazard: Workers lack knowledge to ensure heavy vehicles can operate safely

Unskilled or inexperienced workers may not be accustomed to working with or around heavy vehicles or may not have received any relevant training. e.g., working holiday makers.

2.3.1 Control: Establish working methods and procedures that will ensure that heavy vehicles can operate safely.

2.3.2 Control: Provide training to staff on the procedures and ensure work is undertaken in accordance with the training.

This training should include the importance of not overfilling and understanding the impact of delays on heavy vehicle drivers. Training should be made available in languages other than English, so that all staff may be trained.

2.3.3 Control: Ensure adequate supervision of inexperienced workers.

2.3.4 Control: Provide timely feedback about unsafe practices to the relevant party.

2.3.5 Control: Conduct post-vintage reviews to understand what worked well and what needs to improve in relation to the safe use of heavy vehicles for next vintage.

It is also necessary to instruct staff about how to work with heavy vehicles to ensure their own safety. For further information see SafeWork NSW guidance.[8]

3 Activity: Transporting grower's own grapes

3.1 Hazard: Failure to appreciate requirements for smaller heavy vehicles

Assumptions can be made that smaller heavy vehicles are no different from light vehicles and have no special requirements. For further information about light, medium and heavy-duty heavy vehicles, see the definition of "Heavy Vehicle" in the Key Terms and Definitions section of this Code.

3.1.1 Control: Ensure the heavy vehicle chosen for the transport task has sufficient capacity to carry the intended load without overloading.

3.1.2 Control: Ensure the driver of the heavy vehicle is appropriately licensed and has sufficient experience to operate the heavy vehicle safely.

3.1.3 Control: Ensure appropriate load restraint equipment and techniques are used to transport the grapes.

Refer to the NHVR website for further guidance on using light–to–medium heavy vehicles and the legal responsibilities under the HVNL.[9]

7 www.nhvr.gov.au/safety-accreditation-compliance/national-heavy-vehicle-accreditation-scheme
8 www.safework.nsw.gov.au/__data/assets/pdf_file/0006/936492/sw09568-vehicle-glovebox-safety-guide.pdf
9 www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility/regulatory-advice/managing-the-safety-risks-of-light-to-medium-heavy-vehicle

4 Activity: Selecting heavy vehicles and equipment

4.1 Hazard: Inappropriate heavy vehicle is selected for the task

4.1.1 Control: Select an appropriate heavy vehicle type and combination, having regard to the mass, load type, route, and distance to be travelled.

4.1.2 Control: Engage an external transport provider if there is no appropriate heavy vehicle or combination in your own fleet.

4.1.3 Control: Seek advice from transporter on the most appropriate heavy vehicle or combination.

4.1.4 Control: Ensure an appropriate vessel is available for the transport of fruit to minimise spillage.

For example, consider bins vs tip trailers, dividers, high-sided tip trailers with less fruit.

4.1.5 Control: Use tip trailers with baffles, or other design modifications, to minimise spillage during transportation of machine-harvested fruit.

4.1.6 Control: Use an escalation process when an unsuitable vehicle arrives for loading (see Section 1.2).

A vehicle may be unsuitable if:
- it is not rated to carry the required load
- it is not carrying the necessary load restraint equipment
- it is in poor mechanical condition

Further information about non-compliant vehicles arriving at premises can be found on the NHVR website.[10]

5 Activity: Heavy vehicle maintenance

5.1 Hazard: Vehicle systems and components deteriorate when not in use

During the vintage period, there may be few opportunities to maintain or repair vehicles, and breakdowns may affect the scheduling of vintage tasks.

5.1.1 Control: Prior to vintage, remove vehicles from storage and undertake required service and maintenance.

5.1.2 Control: Conduct detailed inspection of vehicle before use, paying particular attention to those systems and components which can deteriorate during storage.

For example:
- tyres – check for flat spots, cracking and ensure correct pressures
- battery – check charge levels, fluid levels and general condition
- brakes – components may have seized due to surface rust (auto slack adjusters, brake calliper pistons, etc.)
- air system – look for water in air tanks
- fuel – degradation of diesel which has been sitting in a tank for extended periods
- diesel exhaust fluids – additives such as AdBlue can degrade over time.
- vehicle systems or electronics which may be damaged by rodent infestation or attack.

5.2 Hazard: Vehicle not maintained to manufacturer specifications

5.2.1 Control: Maintain the heavy vehicle to OEM (original equipment manufacturer) specifications, as per the service schedules in the operator manual.

5.2.2 Control: Have the vehicle inspected and assessed to determine serviceability and roadworthiness.

5.2.3 Control: Implement a system for drivers to report vehicle maintenance issues and defects and for reported issues to be rectified.

5.3 Hazard: Modifications affect safe performance of vehicles and equipment

5.3.1 Control: Follow the guidance in the *NHVR Code of Practice for the Approval of Heavy Vehicle Modifications*[11] and *Vehicle Standards Bulletin 6*.[12]

5.3.2 Control: Engage an approved vehicle examiner to assess all modifications other than minor modifications

5.3.3 Control: Follow manufacturers' recommendations and Australian Standards in designing and planning modifications.

5.3.4 Control: Engage suitably qualified mechanics, engineers, or fitters to carry out modifications.

5.3.5 Control: Perform all modifications in accordance with good engineering practice.

5.3.6 Control: Ensure that all modifications are fit for purpose.

5.4 Resources

Original equipment manufacturer (OEM) specifications provide detailed instruction for the frequency with which routine maintenance should be carried out on each part of a vehicle and recommend appropriate spare parts or replacements.

If OEM specifications are not available, a competent person should be engaged to develop a pre-start inspection checklist for the heavy vehicle.

The NHVR's National Heavy Vehicle Inspection Manual (NHVIM)[13] provides pass/fail criteria that assist a person maintaining a vehicle to assess whether a part is functioning at a safe standard. It also contains a pre-start inspection checklist. For further information about vehicle standards and modifications, refer to the NHVR website.[14]

6 Activity: Managing premises accessed by heavy vehicles

6.1 Hazard: Heavy vehicles operate in areas accessed by pedestrians

6.1.1 Control: Apply the Loading and Unloading Exclusion Zone (LUEZ) Guidelines[15] to the design of locations accessed by pedestrians, including public access, loading and unloading areas.

6.1.2 Control: Separate pedestrian paths from areas used by heavy vehicles with physical barriers or clearly marked boundaries.

6.1.3 Control: Use signage to draw attention to shared areas.

10 www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility/regulatory-advice/managing-the-risks-associated-with-non-compliant-heavy-vehicles-arriving-at-premises
11 www.nhvr.gov.au/files/201812-0136-code-of-practice-approval-heavy-vehicle-modifications.pdf
12 www.nhvr.gov.au/safety-accreditation-compliance/vehicle-standards-and-modifications/vehicle-standards-bulletin-6
13 www.nhvr.gov.au/safety-accreditation-compliance/vehicle-standards-and-modifications/national-heavy-vehicle-inspection-manual
14 www.nhvr.gov.au/safety-accreditation-compliance/vehicle-standards-and-modifications
15 www.truck.net.au/system/files/industry-resources/r1%202011%20luez%20guidelines.pdf

6.1.4 Control: Mark maps for transporters to indicate areas where pedestrians or other vulnerable road users may have access.

6.1.5 Control: Provide a site induction for heavy vehicle transporters and drivers about how traffic will be managed at the location.

6.2 Hazard: Deterioration of vineyard/ winery roads and connecting roads

Vineyard or winery roads or roads connecting vineyards and wineries to transport routes may deteriorate due to design or construction, due to weather, from excessive use or for other reasons. Roads used infrequently may not be regularly maintained.

6.2.1 Control: Inspect roads regularly, particularly prior to harvest season and ensure that roads or travel routes used by heavy vehicles to access areas on the vineyard or winery are in serviceable condition and will not create hazards or cause damage to vehicles.

6.2.2 Control: Repair damage to roads on private property.

6.2.3 Control: Clearly mark road hazards such as potholes, soft shoulders, steep gutters etc.

6.2.4 Control: Report road maintenance/improvement issues on public roads to road managers.

6.2.5 Control: Share information about all road hazards with transporters.

6.3 Hazard: Vineyard/winery roads are not suitable for all heavy vehicles

Roads on vineyards and wineries, and roads connecting them to transport routes may not be designed for larger or longer heavy vehicles. Height limits under a bridge or structure, ground clearance, road width, angles of turns or corners, stacking distance at a rail crossing, can limit the kinds of vehicles that can safely use a road or road corridor. Mass limits on a bridge or culvert can exclude some vehicle types.

6.3.1 Control: Provide transporters with reliable information about roads to and on a property, to allow them to choose the appropriate vehicle configuration for accessing the property.

6.4 Hazard: Drivers unfamiliar with local area get lost or stuck

6.4.1 Control: Provide transporters with clear instructions and landmarks, or a map about the best or safest routes to reach a property from a transport route, and where to travel within the property.

7 Activity: Route planning

7.1 Hazard: Use of unsafe or unsuitable travel routes

7.1.1 Control: Obtain information on the status of local roads, including gradients, roundabouts, and sharp corners to allow safe routes of travel to be planned.

Refer to the NHVR website for further information about heavy vehicle access, including approved routes and obtaining permits.[16]

7.1.2 Control: Use information provided by winery and vineyard owners to choose the appropriate vehicle and route for each task.

7.1.3 Control: Provide drivers with maps or information about premises they will visit and allow time for them to attend induction sessions where warranted.

7.1.4 Control: Report road maintenance/improvement issues on public roads to road managers. Report road maintenance/improvement issues on private roads to property owners.

16 www.nhvr.gov.au/road-access

8 Activity: Scheduling transport tasks

8.1 Hazard: Factors leading up to vintage can disrupt initial intake plans.

8.1.1 Control: Obtain information from the grower to clarify when fruit is likely to be picked.

8.1.2 Control: Establish schedules for when fruit can be picked through engagement with transporter and other parties.

8.1.3 Control: Establish whether a narrow range (as opposed to a single value) of acceptable Baume levels can be used for scheduling and receival of fruit to extend harvest opportunity.

8.1.4 Control: Ensure relevant information is shared between parties. (See Section 1.1.)

8.1.5 Control: Amend schedules if required, having regard to changes in harvest or delivery timeframes, and communicate any changes to relevant parties.

8.2 Hazard: Equipment breakdown delays loading or unloading

This may include a breakdown of the harvester in the vineyard, or the crusher at the winery.

8.2.1 Control: Conduct pre-vintage planning about how to address equipment breakdowns to minimise idle/waiting time for drivers.

Considerations for this planning may include:

- the duration of delay before other parties must be informed
- delaying the pick
- sending the transporter to another crushing facility
- ensuring access to qualified person for onsite repair of machinery
- in the case of a harvester breakdown, engaging another contractor to pick the fruit
- feasibility of storing picked fruit during small delays.

8.2.2 Control: Ensure relevant information is shared between parties (See Section 1.2).

8.2.3 Control: Use the escalation process when breakdowns cause delay (see Section 1.2).

8.3 Hazard: Driver pressured to speed to meet winery intake times

Schedules should incorporate a degree of redundancy, in the event there are minor delays in the supply chain.

8.3.1 Control: Ensure agreements are flexible and do not cause or encourage a driver to speed by imposing penalties for late arrival.

8.3.2 Control: Establish driving schedules having regard to winery timelines and paths of travel.

8.3.3 Control: Ensure intake schedules are flexible and do not impose unrealistic travel times, forcing drivers to speed.

8.3.4 Control: Communicate delays to relevant parties so schedules can be amended (see Section 1.2).

8.4 Hazard: Grape yield estimates affect delivery of grapes to the winery

The estimated yield from each part of a vineyard is used to plan the transport task and the processing task. Differences between the estimate and actual figures impact all parties.

8.4.1 Control: Provide accurate yield estimates to wineries.

8.4.2 Control: Improve accuracy of yield estimates by involving multiple parties in the yield estimating process.

For example, grower, winemaker, grower liaison officer, scheduler.

8.4.3 Control: For yields which exceed the estimate, establish a process for how additional fruit will be managed.

For example, if it will be accepted, and how and when it will be transported to the winery.

8.4.4 Control: For yields which are below the estimate, adjust transport schedules to allow more time for sufficient fruit to be picked from across a larger area.

8.4.5 Control: Provide timely information to relevant parties about changes to yields to allow for schedules to be amended.

8.5 Hazard: Grape variation affects harvesting and processing speed

Weather, seasonal variation, botrytis etc., affect grape characteristics, which in turn affect the manner and speed of grape harvesting and processing.

8.5.1 Control: Monitor seasonal variations which may affect grape characteristics and harvesting or processing speeds, caused by weather, botrytis, or other variables.

8.5.2 Control: Share relevant information using the methods established in Sections 1.1 and 1.2.

8.6 Hazard: Grape intake estimates are incorrect, causing queuing

Estimates of the time required to unload each vehicle may be inaccurate, if they do not allow for the actual turn-around times at the winery, leading to queuing of trucks.

8.6.1 Control: Establish a procedure to manage the flow of intake at the winery.

8.6.2 Control: Stagger the times when trucks can arrive on site to reduce queuing.

8.6.3 Control: Establish a time slot system to manage the arrival times of heavy vehicles.

8.6.4 Control: Provide training to operational staff at the winery about how to work with other parties so that heavy vehicles are used safely.

8.6.5 Control: Use escalation process to action concerns regarding winery turnaround times (see Section 1.2).

8.6.6 Control: Conduct post-vintage review to examine scheduling and intake practices in consultation with relevant parties, to identify challenges and seek feedback.

8.7 Hazard: MOG reduces processing speed at the winery

The presence of material other than grapes (MOG) increases processing time.

8.7.1 Control: Review the vineyard to assess suitability for machine harvesting and allocate extra time for processing if higher MOG content is likely.

8.7.2 Control: Inform other parties, before harvest, if the fruit will be machine picked as this results in a greater proportion of MOG.

8.7.3 Control: Provide timely information to other parties about the method of picking and the presence of MOG.

8.8 Hazard: Sufficient bins or tip trailers are not available

8.8.1 Control: Provide information about how much fruit is to be transported and in what vessel.

8.8.2 Control: Ensure the transport schedule accounts for sufficient bins or tip trailers being available.

If sufficient bins or tip trailer are not available, ensure more time is added to the transport schedule to allow for additional trips, so the bins or tip trailers used are not overfilled or over mass.

9 Activity: Loading and unloading processes

9.1 Hazard: Operators of loading or unloading equipment are licensed but not competent

9.1.1 Control: Verify the competency of forklift operators before they undertake loading or unloading tasks.

9.1.2 Control: Provide training to forklift operators about the proper operation of all vehicle systems and how to undertake loading and unloading tasks safely.

9.2 Hazard: Improperly immobilised bulk tippers roll away

9.2.1 Control: Engage transporters whose vehicles have immobilising technology.

9.2.2 Control: Install vehicle immobilising technology.

Examples of vehicle immobilising technologies are a park brake alert system, or a fail-safe automatic braking system that instantly applies the vehicle park brake if it is not applied by the driver or operator before they exit the cabin.

9.2.3 Control: Provide training to drivers of bulk tippers to always apply the park brake when stationary at an unloading facility.

Further information about managing the risk of vehicle roll-aways is available from Safe Work Australia[17] and Workplace Health and Safety Queensland.[18]

9.2.4 Control: Support vehicle immobilisation practice during site inductions and by displaying reminders at unloading premises.

9.3 Hazard: Bins or tippers are overfilled

9.3.1 Control: Ensure relevant factors are considered when establishing maximum fill levels for bins and vessels.

Relevant factors to be considered would include:
- the type of grape (red or white, grape variety)
- time and distance to be travelled
- weather conditions
- hand or machine picking
- type of harvesting equipment used

17 Fact sheet: Prevention of vehicle roll-aways and safe immobilisation | Safe Work Australia
18 www.worksafe.qld.gov.au/Safely-immobilising-vehicles-campaign

9.3.2 Control: Fill the bins or tip trailer to an appropriate level to minimise spillage in transit.

9.3.3 Control: Ensure overfilled bins or tip trailers are rectified and loads reduced prior to departure from loading area.

9.4 Hazard: Spillage due to greater movement in underfilled bins or vessels

9.4.1 Control: Ensure bins are filled to an appropriate level and not underfilled.

9.5 Hazard: Grape marc is overloaded or unsecured

9.5.1 Control: Establish a procedure for loading marc, accounting for those factors which vary marc weight, e.g., press wash.

9.5.2 Control: Tarp loads to minimise marc dispersion in transit.

9.6 Hazard: Plastic bins are damaged or break from exposure to the sun

9.6.1 Control: Store bins in accordance with manufacturer's instructions.

9.6.2 Control: Check bins for obvious defects and replace if not usable.

9.7 Hazard: Inadequate restraint of bins on flat-bed trailers

9.7.1 Control: Develop a loading plan to ensure correct restraint of bins in accordance with the Loading Requirements and the Loading Performance Standards.

For guidance about load restraint, refer to the Load Restraint Guide.

9.7.2 Control: Provide training to staff to load and secure bins in accordance with the loading plan.

9.7.3 Control: Implement an engineered solution to safely restrain bins.

Keep evidence of the solution in the truck when transporting goods, or accessible to the driver

10 Activity: Managing loads during transport

10.1 Hazard: Drivers unfamiliar with how grapes affect vehicle handling

Loads of grapes behave differently from many other commodities during braking, turning, and acceleration. Loads with different characteristics can also perform differently.

10.1.1 Control: Ensure transporters are aware of factors affecting the transport of wine grapes and associated products.

For example:
- the juiciness of grapes
- type of grape (red or white, grape variety)
- how grapes move during transportation
- the dangers of any spillages.

10.1.2 Control: Adjust transport schedules to allow greater time for juicier loads to be transported at lower speeds.

10.1.3 Control: Provide training to drivers about the behaviour of fluids in transit and the effect on vehicle stability and steering.

10.2 Hazard: High juice levels increase risk of movement and overflows

A high proportion of juice in a load can be the result of:
- fruit being harvested by machine
- fruit picked at the start of vintage
- higher juice content in some grape varieties.

10.2.1 Control: Inform transporter about juice component of loads.

10.2.2 Control: Ensure transport equipment is designed to contain the load, including juice.

10.2.3 Control: Fill the bins or tip trailer to an appropriate level to minimise spillage in transit.

10.2.4 Control: Ensure overfilled bins or tip trailers are rectified and loads reduced prior to departure from loading area.

10.3 Hazard: Incorrect loading causes a road hazard as grapes spill on roads

10.3.1 Control: Ensure the correct bin, vessel or tip trailer is selected for the transport task.

Factors to consider include:
- the type of grape (red or white, grape variety)
- time and distance to be travelled
- weather conditions
- hand or machine picking
- type of harvesting equipment used
- newer machinery can remove more vine material resulting in juicier loads that are more likely to spill.

10.3.2 Control: Substitute a different type of bin for bins with a 45-degree slope.

10.3.3 Control: Regularly inspect bins for damage and replace or repair as necessary.

10.3.4 Control: Install baffles in bins and tip trailers to reduce the risk of sloshing.

10.3.5 Control: Check for leaks from bins, truck, trailer, tipper etc, as part of pre-trip inspection.

10.3.6 Control: Cover bins and tip trailers with lids or tarps to reduce the risk of spillage.

An ordinary tarp may not be effective at preventing spillage of loads with a high moisture content.

10.3.7 Control: Ensure that bin lids are sealed and strapped down appropriately.

10.3.8 Control: Ensure that plastic bins are not overfilled as they can lose structural integrity and crack.

10.3.9 Control: Establish a procedure to monitor and provide feedback to relevant parties on instances of spills during the transport journey.

10.4 Hazard: Bottled wine moves during transport

10.4.1 Control: Establish a procedure to ensure the correct placement of cartons onto pallets.

10.4.2 Control: Ensure unitization method incorporates the cartons and the pallet to prevent movement in transit.

10.4.3 Control: Develop a loading plan and ensure bottled wine is loaded and secured in accordance with plan.

10.4.4 Control: Provide feedback to relevant parties on instances where the load has not been packed or secured appropriately for transport or has moved during transport.

10.5 Resources

The Loading Requirements and the Loading Performance Standards are found in Schedule 7 of the HV(MDL)NR[19]. For detailed guidance about compliance with the Loading Performance Standards and practical suggestions for restraining a range of load types, refer to the Load Restraint Guide.[20]

11 Activity: Load mass management

11.1 Hazard: Heavy vehicles are over mass

11.1.1 Control: Use modern harvesters that have built-in scales for weighing fruit.

11.1.2 Control: Use weighing equipment to determine the weight of fruit after harvesting.

For example:

- inline scales on 2t or 4t chaser bins/gondolas that weigh fruit before it is emptied into the tip trailer
- technology enabled weighing tools on harvester gondola to help monitor what is being loaded
- portable scales to weigh individual bins
- load cells on trailers
- weighbridge/ weight pad/ weigh in motion device that can be driven over
- scales on forklifts that take bins off trailers.

11.1.3 Control: Monitor the number and mass of chaser bins/ gondolas emptied into each tip trailer or vessel.

11.1.4 Control: Empty fruit from chaser bins/gondolas evenly across the tip trailer.

11.1.5 Control: Record load weights before vehicle leaves the vineyard.

11.1.6 Control: Provide winery with records of bin weights as calculated in the vineyard and communicate any discrepancies to relevant parties.

11.1.7 Control: Where grapes are loaded onto a truck which already holds other fruit (mixed/split load), ensure clear documentation on load weight is kept at each stage of the journey.

11.1.8 Control: For heavy vehicles loaded at the winery, use winery weighbridge to identify load weight before truck departure.

11.1.9 Control: Ensure weighing equipment is calibrated in accordance with original equipment manufacturer (OEM) specifications.

11.1.10 Control: Establish a procedure for safely removing fruit from overloaded bins or trailers.

11.1.11 Control: Advise other parties of delays caused by unloading overloaded bins or trailers (see Section 1.2).

11.1.12 Control: Establish a process for informing relevant parties about bins that are overloaded.

11.1.13 Control: In the event of delays, review and amend schedules for arrival at winery.

11.1.14 Control: Establish a procedure to ensure grapes from the end of a job/row/vineyard are loaded and transported safely.

This procedure is necessary to avoid overloading of grapes onto a heavy vehicle to finish the job.

11.2 Hazard: Heavy Vehicle is overloaded with grapes upon arrival.

11.2.1 Control: Establish agreed terms which discourage overloading (overfilling or over-mass).

Agreements should consider mechanisms to give parties an opportunity to improve their mass management rather than imposing a penalty. The NHVR website contains further information about managing the risks associated with non-compliant heavy vehicles arriving at premises.[21]

11.2.2 Control: Use escalation procedure to report when vehicles arrive overloaded (see Section 1.2).

11.2.3 Control: Establish the tare weight of each type of bin.

11.2.4 Control: Install scales onto forklifts used for unloading.

11.2.5 Control: Install weighbridges onsite at wineries.

19 www.legislation.qld.gov.au/view/pdf/inforce/current/sl-2013-0077 Schedule 7
20 www.nhvr.gov.au/files/202112-1285-load-restraint-guide-2018.pdf
21 www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility/regulatory-advice/managing-the-risks-associated-with-non-compliant-heavy-vehicles-arriving-at-premises

11.2.6 Control: Verify the mass of any suspected over mass vehicles using the nearest local weighbridge.

11.2.7 Control: Request presentation of records created during loading process.

11.2.8 Control: Conduct post-vintage review with all relevant parties to enable feedback and learnings and to improve the safe use of heavy vehicles for next vintage.

11.3 Hazard: Bulk wine is overloaded

11.3.1 Control: Engage a transporter who can demonstrate their ability to manage mass as required for the transport of bulk wine.

11.3.2 Control: Adhere to driver instructions on how to fill the wine tanker.

For example, whether all compartments are filled.

11.3.3 Control: Install and use calibrated inflow meters to measure the amount of juice/wine being put into a tanker/container bladder (flexi tank).

11.4 Resources

Check information from the OEM for the maximum safe load for each vehicle. Refer to the HV(MDL)NR for gross and axle mass limits or refer to the NHVR website[22] for information about permits and exemptions. Note that mass limits can apply for individual roads or bridges. Note that where there are conflicting limits, you must comply with the lowest limit.

12 Activity: Managing driver fatigue

> **Note:** Fatigue impacts decision-making and reduces the effectiveness of all risk controls involving a person undertaking an action.

Managing driver fatigue can be complex, requiring a suite of controls to be effective. It may be necessary for your business to implement a combination of controls, or different parts of multiple controls, to build a framework which will manage driver fatigue. Measures that prevent drivers becoming fatigued are preferred, but drivers may nonetheless experience fatigue during their work hours, and this is a hazard that must also be managed. Therefore, it may be necessary to assess the fatigue of a driver at multiple points during a day.

For further guidance about the management of fatigue refer to the Master Code.

12.1 Hazard: Driver is impaired by fatigue

12.1.1 Control: Develop and implement a procedure to assess a heavy vehicle driver's fatigue levels.

The procedure should be adapted to the specific circumstances in which the business and employees operate, and consider the following principles:

- Numerous factors affect fatigue, including the nature of the work and the work environment, shift start times and duration, and the work performed by the driver over previous days. The driver's age and overall health will also impact the risk of fatigue. For example, undiagnosed sleep apnoea is a recognised risk for professional and casual drivers alike. Other health conditions may also alter a person's sleep requirements.
- Self-assessment of fatigue levels is a basic element of fatigue management. It begins before the worker starts work and should continue throughout the shift. It is also part of a worker's own duty to keep themselves and others safe. Self-assessment is most effective when workers are trained about the causes, indicators and consequences of fatigue and where there are procedures in place that support them to stop driving when they identify that they are at risk of being impaired by fatigue. A properly trained worker may have the earliest opportunity to detect that they are at risk of fatigue.
- Fatigue risk management can be improved by also using objective fatigue assessment methods to support self-assessments. These include second-person assessments and the use of fatigue risk evaluation tools. Objective fatigue assessments reduce the risk that bias, or fatigue impairment, affects the assessment outcome.
- Assessments by a second person are preferred because that person is better able to identify physical signs of fatigue such as slow blinking, unsteadiness or lack of balance, or inattention to conversation/details. Where there is no other person present, a second-person assessment could be conducted via video call or phone call, though this may reduce the opportunity to observe non-verbal cues. An in-person, second-person assessment could also be conducted at the next sensible opportunity.
- A fatigue risk evaluation tool asks for information about factors which cause fatigue and uses this as the basis of an objective assessment. There are a variety of tools available, for example, online tools, smart phone applications, or paper-based tools that include calculations. There are some freely available software applications that perform this function. You should verify for yourself which tools are suitable, or whether a similar tool should be adapted for your operations.
- Also consider that a person's fatigue level changes over the course of a shift and should be re-assessed from time to time using objective fatigue assessment measures. Appropriate times to re-assess may include:
  - before the driver commences or recommences driving
  - when there are indications of fatigue
  - at the time at which a fatigue risk evaluation tool predicts there will be an increased level of fatigue related risk.

The implementation of the procedure should include the development of relevant documentation and training for employees about how the procedure operates and how information is recorded and shared.

12.1.2 Control: Ensure a driver who is assessed as unfit for duty or assesses themselves as unfit for duty, does not drive a heavy vehicle.

12.1.3 Control: Provide a location for drivers to rest on site, including if they arrive on site early.

Where possible, choose a location that is away from other machinery or vehicles and that is more comfortable for drivers, for example, where there is shade, shelter, amenities etc.

12.1.4 Control: Take practical steps to support a fatigued driver to rest immediately.

If another party becomes aware the driver is impaired by fatigue or is in breach of their regulated work and rest hours, they should stop the driver immediately and

22 www.nhvr.gov.au/road-access

arrange for the driver to have a rest break. Other actions may include assigning the driving task to another driver or contacting the driver's employer to arrange a relief driver.

12.1.5 Control: Ask business partners to provide feedback about fatigue incidents.

12.1.6 Control: Establish an internal procedure for reporting instances of driver fatigue.

12.2 Hazard: Employees lack knowledge about fatigue risk management

12.2.1 Control: Provide training for all employees about the factors that cause fatigue.

Factors to be included in such training may include:

- the quality of rest
- recognising mental health wellbeing
- physical health and diet
- the importance of properly preparing for work
- medication
- responsible use of alcohol and other drugs
- medical conditions, including sleep apnoea and other sleeping disorders
- exposure to environmental factors such as heat, cold, noise, vibration, dust
- lifestyle factors, other work or family demands.

12.2.2 Control: Provide training for all employees about the risks of driver fatigue and the importance of procedures and systems to eliminate or reduce it.

12.2.3 Control: Provide training for all employees about how to identify fatigue and steps to take at any time when a driver self-assesses as fatigued or is assessed as potentially fatigued by another person.

See Section 12.6 Resources for information about training modules available under the Australian Skills Quality Authority (ASQA) framework in relation to fatigue.

12.3 Hazard: Agreements or schedules encourage driving whilst fatigued

12.3.1 Control: Ensure the driving schedule accounts for non-driving work and enables appropriate breaks to be taken.

12.3.2 Control: Ensure agreements are flexible and do not cause or encourage a driver to drive whilst fatigued and allow drivers to stop and rest if fatigued, without incurring penalties for delay.

12.4 Hazard: During vintage, drivers are fatigued before driving a heavy vehicle

Particularly during vintage, wine industry employees may be required to work long hours on successive days, then be asked to drive a heavy vehicle. Although the driver may not be in breach of regulated work and rest hours, the risk that they will be driving while impaired by fatigue must still be managed.

12.4.1 Control: Engage a transport contractor to transport the harvest to the winery.

12.4.2 Control: Enable the wine industry employee to rest well before commencing driving, and if needed, delay the start time in consultation with other parties (see Section 1.2).

Use a combination of measures to ensure the driver is not fatigued, e.g., temporarily employing people to perform time-critical tasks; deferring some tasks; avoiding allocating lengthy tasks to employees on the days immediately before they are scheduled to drive.

12.4.3 Control: Limit the number of deliveries the winery will accept from a grower who transports their own harvest, or the number of days on which they will be accepted.

Winery employees can monitor growers who deliver their own produce continuously.

12.4.4 Control: Apply relevant controls from section 12.1.

12.5 Hazard: Drivers having to wait due to poor delivery planning

12.5.1 Control: Allow drivers to park and rest in position, without having to move from place to place in a queue.

12.5.2 Control: Have a system for noting the order in which vehicles arrive at the location, and so drivers do not have to wait in a queue.

The system should include an alert function to notify drivers when it is their turn to be loaded or unloaded.

12.5.3 Control: Provide driver rest facilities and amenities so drivers can rest away from their vehicle.

12.5.4 Control: Stagger when trucks arrive at vineyards and at wineries.

For example, by allocating time slots when vehicles should arrive at a site.

12.5.5 Control: Ensure relevant information is shared between parties (see Section 1.2).

Providing information about delays at the earliest opportunity may allow drivers to stop and rest at alternate locations and avoid queuing.

12.5.6 Control: Implement driver notification apps, to notify of delays and reschedules (see Section 1.2).

For a smaller operation, this could be an SMS or social media group that includes all relevant parties.

12.5.7 Control: Explore options for split loading timeframes if delays in the vineyard cause interruptions to transport schedules.

12.6 Resources

Training modules are available under the Australian Skills Quality Authority (ASQA) framework in relation to the management of fatigue. Relevant units of competency include:

- TLIF0005 – Apply a fatigue risk management system
- TLIF0006 – Administer a fatigue risk management system
- TLIF0007 – Manage a fatigue risk management system

Safe Work Australia has published a Guide for Managing the Risk of Fatigue at Work.[23]

23 www.safeworkaustralia.gov.au/doc/guide-managing-risk-fatigue-work

KEY TERMS AND DEFINITIONS

Term	Explanation
Business practices	A person's practices in running a business associated with the use of a heavy vehicle on the road, including: ▪ operating policies and procedures, ▪ human resource and contract management arrangements ▪ the arrangements for preventing or minimising public risks associated with the person's practices.
Chain of Responsibility (CoR)	The list of parties in the transport supply chain for a heavy vehicle with a Primary Duty obligation to ensure the safety of their transport activities.
Consignee	A CoR party that receives goods delivered by a heavy vehicle
Consignor	A CoR party that consigns goods for transport by a heavy vehicle
Controls	The activities undertaken to eliminate or minimise risk. The hierarchy of controls includes elimination; substitution; isolation; engineering; administration; personal protective equipment.
Driver or Heavy Vehicle driver	An employed driver is not a party in the CoR. However, if a driver is a self-employed owner-operator then they fall within the definition of an 'operator' under the HVNL.
Employer	A CoR party that employs a heavy vehicle driver
Gross Vehicle Mass (GVM)	Of a vehicle, means the maximum loaded mass of the vehicle as specified by the registration authority or stated by the vehicle's manufacturer.
Hazard	Anything with the potential to cause harm or loss. This could be an activity or behaviour, a physical object, a situation or a management practice.
Heavy Vehicle	A vehicle with a GVM or Aggregate Trailer Mass (ATM) of more than 4.5t (a heavy motor vehicle or a heavy trailer), or a combination that includes a vehicle with a GVM or ATM of more than 4.5t (a heavy combination). A "light duty" heavy vehicle has a GVM between 4.5t and 8t and only two axles. A "medium duty" heavy vehicle has a GVM over 8t and only two axles. A "heavy duty" heavy vehicle has a GVM over 8t and more than two axles.
HV(MDL)NR[24]	Heavy Vehicle (Mass, Dimension and Loading) National Regulation
HVNL[25]	Heavy Vehicle National Law
Loader	A CoR party that loads a heavy vehicle
Loading Manager	A CoR party – the person or business that manages premises where five or more heavy vehicles are loaded or unloaded each day
Master Code[26]	A registered industry Code of Practice for parties in the Chain of Responsibility for heavy vehicles.
NHVAS	The National Heavy Vehicle Accreditation Scheme, a scheme managed by the NHVR that allows accredited operators greater flexibility in complying with mass, maintenance, or fatigue requirements of the HVNL.
NHVR	National Heavy Vehicle Regulator
OEM	Original Equipment Manufacturer
Operator	A CoR party that directs the control and use of a heavy vehicle
Packer	A CoR party that packs or assembles goods for transport in a heavy vehicle
Primary Duty[27]	The obligation on a party in the Chain of Responsibility to ensure, so far as is reasonably practicable, the safety of their transport activities relating to the vehicle.
Prime contractor	A CoR party – a person or business that engages a self-employed driver to drive a heavy vehicle under a contract for services
Public Risk	Risks to drivers, passengers, other road users and members of the public in the vicinity of roads and public places. It also includes the risk of damage to property, including vehicles and loads, damage to road infrastructure and harm to the environment.
Reasonably Practicable (or Reasonable Practicability)	Reasonably practicable (HVNL s5), in relation to a duty, means that which is, or was at a particular time, reasonably able to be done in relation to the duty, weighing up all relevant matters, including— a) the likelihood of a safety risk, or damage to road infrastructure, happening; and b) the harm that could result from the risk or damage; and c) what the person knows, or ought reasonably to know, about the risk or damage; and d) what the person knows, or ought reasonably to know, about the ways of— i) removing or minimising the risk; or ii) preventing or minimising the damage; and e) the availability and suitability of those ways; and f) the cost associated with the available ways, including whether the cost is grossly disproportionate to the likelihood of the risk or damage.
RICP	A Code of Practice registered by the NHVR that provides information about hazards, risks and control measures to parties in the CoR. A registered code may be used as evidence by a court.
Risk	The effect of uncertainty on objectives (an effect can be a positive or negative deviation from the expected outcome).
Risk management	The coordinated activities to identify and control the risks arising from the activities of an organisation. The risk management process consists of four key steps, including identifying hazards; assessing risks; controlling risks; and monitoring and reviewing controls.
Road and road related area	A road is an area open to or used by the public for the driving or riding of motor vehicles (includes bridges, culverts and railway crossings) and A road related area is an area that divides a road or a shoulder, footpath, nature strip, bicycle path, shared path, parking area, kerb etc.
Scheduler	A CoR party – the person or business that schedules the transport of goods and passengers in a heavy vehicle, or schedules a driver's work and rest hours
Transport activities	Any activity related to the use of a heavy vehicle on a road. The term encompasses business practices such as operating policies and procedures, human resource and contract management, arrangements for preventing or minimising public risk, as well as the usual range of activities associated with transport and logistics, such as driving, directing, employing or contracting drivers, consigning, scheduling, packing, loading, unloading and receiving goods and scheduling vehicles for inspection and maintenance. The term is extremely broad, and may apply to novel activities, the use of data and technologies, the choice of vehicles and equipment, and so on.
Unloader	A CoR party that unloads a heavy vehicle

24 www.legislation.qld.gov.au/view/whole/html/inforce/current/sl-2013-0077
25 www.legislation.qld.gov.au/view/whole/html/current/act-2012-hvnlq
26 www.nhvr.gov.au/files/ricp-master-code.pdf
27 www.legislation.qld.gov.au/view/pdf/inforce/current/act-2012-hvnlq

CODE ADMINISTRATION

This Code will be maintained by the NHVR in accordance with the conditions of registration in Section 706(2) of the HVNL, and the Guidelines for Preparing and Registering Industry Codes of Practice (February 2022).

As Sponsor of this Code of Practice, the South Australian Wine Industry Association (SAWIA) will support the maintenance of this code and contribute to its review.

This code is registered for a period of 5 years and will be subject to review by December 2029.

Contact details

National Heavy Vehicle Regulator
codes@nhvr.gov.au

South Australian Wine Industry Association (SAWIA)
Level 1, Industry House National Wine Centre
Corner Hackney and Botanic Roads
Adelaide SA 5000
P +61 8 8222 9277
admin@winesa.asn.au

NATIONAL HEAVY VEHICLE REGULATOR
www.nhvr.gov.au
E info@nhvr.gov.au
P 13 NHVR (13 64 87)
PO Box 492, Fortitude Valley QLD 4006