How to do a risk assessment for your trucking business

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A risk assessment means working out what could hurt someone in your transport work, how likely and how bad it would be, and what you will do about it. Write it in a risk register, put the controls in place, and check them regularly. It doesn't need to be complicated - a simple register that you actually use is enough.

Why it matters

Under the Heavy Vehicle National Law, you must ensure, so far as reasonably practicable, the safety of your transport activities. A risk assessment is how you show you have thought about what could go wrong and done something about it. Risk management is also one of the five areas of the SMS Standard 2026, so an auditor will ask to see it.

Hazard, risk and control

Word What it means Example

Hazard Something that could cause harm An uneven load

Risk What could happen, who could be hurt, and how badly The load shifts and the truck rolls over

Control What you do to stop it or make it less likely or less serious A loading procedure, driver training, axle weight checks

The five steps

[Image: The five steps of risk assessment: find the hazards, assess the risk, put controls in place, monitor and review, keep improving]

1. Find the hazards

Walk through what your business actually does - loading, driving, fuelling, yard work, maintenance, dealing with customers' sites. Ask your drivers. Look at incidents, near misses, faults and roadside inspections.

2. Assess the risk

For each hazard, ask what could happen, who could be affected, how likely it is and how bad it would be. Take into account the controls you already have and whether they work. Deal with the

highest risks first.

3. Put controls in place

Get rid of the risk where you reasonably can. If you can't, reduce it as far as reasonably practicable, using the most effective controls first.

4. Monitor and review

Check the controls are being used and are working. Review the risk when something changes, after an incident or near miss, and at your scheduled reviews.

5. Keep improving

Use what you learn from incidents, audits, inspections and driver feedback to fix controls and update your procedures.

Rating the risk

[Image: Example risk matrix rating likelihood against consequence, showing a load shift risk moving from high to medium after controls]

Most businesses use a risk matrix: you rate how likely something is and how bad the consequence would be, and the matrix gives you a rating such as low, medium, high or extreme. The NHVR publishes a free risk assessment matrix you can use. Pick one, use it the same way every time, and decide what each rating means - for example, "extreme: stop until it's fixed".

Pick the strongest controls

[Image: Hierarchy of controls for trucking: eliminate, substitute, engineering and technology, procedures and training, PPE]

Work down this list. The controls near the top work best because they don't rely on people remembering to do the right thing.

Control	Trucking example
Eliminate the hazard	Have the customer's forklift load the truck so the driver isn't climbing on the deck
Substitute something safer	Use a tautliner instead of a flat-top for loads that need tarping
Engineering and technology	Speed limiters, reversing cameras, fall-arrest rails, telematics alerts
Procedures and training	Loading procedure, journey planning, driver induction, toolbox talks
PPE	Gloves, hi-vis, safety boots

Most risks need a mix. A procedure on its own is the weakest option, so back it up with training, supervision and checks.

Common risks to start with

- Fatigue and fitness for duty
- Speed and scheduling pressure
- Loading, load restraint and mass
- Vehicle defects and maintenance
- Falls from trucks and trailers
- Reversing and yard traffic
- Customer sites and third parties
- Working alone and remote travel
- Heat

Write it down in a risk register

[Image: Example risk register line for an uneven or poorly restrained load]

For each risk, the NHVR says your register should show:

- the hazard
- the risk - what could happen, who could be harmed and how badly
- the controls already in place
- the risk rating
- any extra controls you will add, and who will do it
- when you will next review it

Free NHVR tools

The NHVR has a free Risk Register template, a single-risk assessment template, a task risk assessment template and a Risk Register Builder. The builder suggests hazards and controls from the 2026 Master Code of Practice - use it as a starting point and change it to fit your business.

Use it, don't file it

A risk register is a living document. An auditor will look for evidence that you review it, that the controls are being used, and that you update it after incidents and changes.

General information, not legal advice.

Sources

NHVR - Quick Guide: Risk Registers - https://www.nhvr.gov.au/files/media/document/1003/202610-0802-sms-quick-guide-risk-registers.pdf

NHVR - SMS resources (free templates) - https://www.nhvr.gov.au/safety-accreditation-compliance/safety-management/resources

NHVR - Risk Register Builder - https://www.nhvr.gov.au/resources/risk-register-builder/