

Company A

Example Safety Case

EXAMPLE

Company A is a small company operated by two directors. They currently have contracts to supply water to drill sites in the coal seam gas fields in Queensland. They currently have 15 drivers and 15 units towing water tanks operating under AFM.

Company A drivers are rostered onto the site for a roster of 14 days on and 7 days off and are housed in an accommodation camp for the duration of the roster period.

All vehicles in the fleet are fitted with In Vehicle Monitoring Systems (IVMS) that are monitored in real time by the organisation.

The drivers transport water from filling points to drilling rigs or accommodation camps. A recent report obtained from the IVMS showed that over a 14 day period the vehicles averaged 132 kilometres per shift.

The drivers start and finish at the accommodation camp daily. They attend a toolbox safety meeting at the start and finish of each shift.

Currently they drive for no more than 2 hours before they stop and exit the vehicle to fill or empty the water tanks. It takes approximately 25 minutes to fill and empty each tank.

Due to the location of the camp the drivers are accommodated at, they are required to drive in and drive out. To mitigate the risk of fatigue drivers must be in camp by 6PM on the evening before their first shift and must attend the toolbox safety meeting on the morning after their last shift. When they leave they must complete a Journey Management Plan in conjunction with their supervisor and notify their supervisor when they have arrived home safely.

Proposed Operating Limits

TIME	WORK	REST
In any period of.....	A driver must not work more than a MAXIMUM of ...	And must have the rest of that period off work with at least a MINIMUM rest break of.....
3 hours 15 minutes	3 hours of work time	15 continuous minutes rest time
12 hours	11 hours work time	60 minutes rest time in blocks of 15 continuous minutes
24 hours	11 hours work time	12 hrs continuous hours continuous stationary rest time*
21 days	154 hrs work time	7 days continuous stationary rest time that includes the periods of 12AM to 6AM on each day using the time zone of the driver’s base.

* Rest time must include the period of 00:00 to 06:00

Overview of Risks and Control Measures

Principle	Risk	Countermeasures/Controls
1. Time spent continuously working	<p>HIGH 8.33%</p> <p>(12hr WO with 60mins within work rest)</p>	<ul style="list-style-type: none"> • Task Rotation • Rest break every 3 hours • Camp Accommodation • Regular Shifts • Daily Toolbox Safety Meetings • Reduced kilometres travelled • IVMS monitoring • Quality food • Training • Task Rotation
2. Frequent breaks from driving	<p>LOW 3 hours</p>	<ul style="list-style-type: none"> • Quality camp accommodation • Innerspring mattress • 12 hours rest scheduled in 24 hour period • Quality food • Training
3. Adequate sleep opportunity	<p>LOW 10 hours</p>	<ul style="list-style-type: none"> • Drivers' shifts are between 6AM and 6PM. • Drivers rest is in the night rest parameter every night.
4. Adequate night sleep	<p>LOW 100%</p>	<ul style="list-style-type: none"> • No night work
5. Shift ending between 0:00 to 06:00hrs	<p>LOW 0%</p>	<ul style="list-style-type: none"> • 12 hours rest opportunity in 24 hour period
6. Minimise extended shift	<p>LOW 12 hours</p>	<ul style="list-style-type: none"> • 7 days off in every 21 days • Reduced work times • No night work • IVMS monitoring • Reduced kilometres covered (average: 132 kms per shift) • Driver commute to work policy • Secondary employment policy
7. Reset rest breaks	<p>EXCEEDS LIMITS 14 days</p>	

An analysis of the hours based risks associated with the proposed operating limits has been conducted with peak risks having been identified in the first and third dimension of the RCS; Dimension 1 concerning Work Related Rest Breaks and Dimension 3 concerning Reset Breaks. The associated principles are addressed in detail below.

It should also be recognised that additional risks were identified, with subsequent analysis revealing these to be of low frequency and consequence and as such have not been included for discussion herein.

Principle 1 - Reduce the time spent continuously working in the work opportunity.

Our proposed work/rest hours allow for 60 minutes of rest across a 12 hour work opportunity. This is in line with the current Standard Hours arrangements and presents a high risk on the RCS. We understand risks associated with time spent continuously working and prolonged work time without frequent breaks increase impairment due to:

- Long driving hours
- Boredom
- Repetitive work
- Lack of movement
- Doing physical work before getting behind the wheel
- Long periods of high concentration
- These risks are offset in practice in the following ways:
- Work opportunity comprises of both driving and non-driving tasks
- Driving tasks do not last more than 2 hours
- Rest breaks are taken after no more than 3 hours

Currently on a normal day our drivers:

- Commence their shift at 06:00 and attend a safety toolbox meeting
- Drive for stints of no more than 2 hours
- Monitor the filling and emptying of each tank (25 minutes)
- Have rest breaks at least every 3 hours
- Finish their shift with a toolbox safety meeting (approx 15 minutes)
- Are supplied with breakfast, lunch, dinner and snacks

Although the time spent continuously working is identified as a high risk per the Risk Classification Principles we believe the hours we are proposing meet or exceed the hours able to be undertaken by a driver on Standard Hours with none of the control measures we have in place. Having the requirement to have a break after every 3 hours compared to every 5 hours allowed under Standard Hours means a reduction of 40% of the hours driven before having a rest from work.

Principle 7 - Reduce the accumulation of fatigue with Reset breaks at least 30hrs and including two night periods, (00:00-06:00) between work sequences.

The proposed number of consecutive days working exceeds the limits identified in the Risk Classification System and is the primary concern for our application. We understand the risks associated with elongated work sequences to be:

- Build-up of sleep debt
- Body clock does not have sufficient time to adjust
- Disrupted sleep patterns

In practice, these risks are offset in the following ways:

- Adequate sleep opportunities (12 consecutive rest hours in 24 hour period)
- 13 hours rest in any 24 hour period
- Sleeping quarters are stationary and located away from major roads
- The rosters contain no night work

- Provision of quality meals
- No family demands on time after work
- Simpler rosters for the drivers to follow
- Will allow drivers to remain in one vehicle for the most part
- Drivers are tested for alcohol daily and must have a BAC of 0.00
- Regular shift start and finish times
- Longer reset rest period of 7 days

Although the total number of shifts is increased, the opportunity for rest has also been increased and the total number of hours worked in each 24 hour period has been decreased.

The risk assessment conducted by *Company A* has identified and considered a range of fatigue related risks. It was recognised that factors not relating work/rest hours also contribute to a driver's level of fatigue impairment. The following general living conditions provided to drivers further reduce fatigue associated risks: Drivers are provided with an increased opportunity for sleep in an environment which is favourable for the driver to obtain a high level of quality sleep within the sleep opportunity. All other outside requirements are also provided for the driver.

- Drivers are provided with accommodation at a camp that provides superior accommodation to the approved sleeper cab.
- All vehicles are fitted with air-conditioning that provides for greater in-cabin temperature control. All drivers cabs are ventilated in accordance with ADR 42.04 19 as a minimum and are maintained in accordance with the manufacturer's specifications.
- Drivers are allowed time to wake and transition to work mitigating the effects of sleep inertia.
- At the camp the driver is provided with all meals and so negates the need to cook with provision for the driver to take lunch with them.
- Accommodation consists of a bed with a quality innerspring mattress and bed linen, an en suite and cupboard space.
- Accommodation is cleaned and towels and linen are provided and laundered.
- The daily safety toolbox meet affords supervisors and other drivers to observe each other for signs of fatigue or illness.
- Drivers have a regular starting time and are able to "set their body clock" with respect to their circadian rhythms.
- Drivers have a minimum of 12 hours between shifts.
- The only household responsibility that the driver is required to undertake is his laundry. Laundry facilities are provided in these camps.
- The nature of the actual work necessitating the driver to get in and out of the truck regularly allows the driver to have regular breaks from driving and reduces boredom.
- The nature of the operation only allows drivers to cover reduced kilometres daily.

In addition the following non-hours based controls are in place to benefit performance, safety and fatigue risk management:

- Vehicles are fitted with IVMS with Geo-fences able to be set to show any exceptions of the Approved Work times.
- The IVMS is monitored by *Company A*.
- All drivers and staff who have any input into rostering and scheduling must undertake specific Nationally Recognised Fatigue Management Training delivered by a Registered Training Organisation (TLIF 2010A Apply Fatigue Management Strategies for drivers and TLIF6307A Administer the implementation of fatigue management strategies for rostering and scheduling staff.)
- All employees are provided with a Company Induction detailing the organisation's policies, procedures and expectations relating to the Fatigue Management System.
- Drivers undertake regular medical assessments and self-assess their fitness on a daily basis.