

23 September 2015

Josh Munro
Coroners Registrar
Coroners Court of Victoria
65 Kavanagh Street
SOUTHBANK VIC 3006

Level 23, 80 Collins Street
Melbourne Vic 3000
GPO Box 1716
Melbourne Vic 3001
T 1800 638 802
F (03) 8683 0777
www.taxi.vic.gov.au

Dear Mr Munro

Court ref: COR 2013 003915 – Investigation into the death of Sandeep S Brar

Thank you for your letter of 28 June 2016 and copy of the Finding without Inquest made by Coroner Audrey Jamieson in relation to the death of Sandeep Brar on 2 September 2013 at Hood Street, Mont Albert from carbon monoxide poisoning.

I note that, based on the available evidence, the Coroner found that the broken tail pipe in taxi-cab M2081, driven by Mr Brar, allowed free exhaust gasses to build up in the offside rear bumper cavity of the vehicle, enabling the gasses to enter the boot via unsealed holes and a leaking boot vent. The vehicle's cabin was not sealed from the boot cavity, allowing the carbon monoxide exhaust gas to enter the cabin while Mr Brar slept with the engine running.

I note the Coroner makes the following two recommendations:

1. That the Taxi Services Commission considers the introduction of mandatory carbon monoxide monitoring for taxi vehicles that is periodic or at the time of service; and
2. That the Taxi Services Commission provides education to drivers on the dangers of carbon monoxide poisoning in connection to 'power napping' while the car engine is running, and also proceeds with incorporating the planned amendments to the '*Fatigue Management Guidelines*' to explicitly advise drivers to turn their engines off while resting and discourage any existing accepted practices in this regard.

The Taxi Services Commission (TSC) appreciates the opportunity to provide you with the following information in response to these recommendations.

Recommendation 1 statement of action: An alternative to the Coroner's recommendation has been implemented.

The TSC was established in 2013 as the independent regulator of the commercial passenger vehicle industry, replacing the former Victorian Taxi Directorate. The TSC's primary objective is to promote the provision of commercial passenger vehicle services that are safe, accessible, customer responsive, competitive and efficient. This includes improving the safety of drivers and passengers and promoting public confidence in the safety of the commercial passenger vehicle industry.

As previously advised in an email to the Coroners Court on 19 April 2016, the TSC does not believe it is common practice for drivers to rest and nap in their vehicles with the engine running.

In response to those initial enquiries from the Coroners Court in relation to this investigation, the TSC investigated the feasibility of mandating carbon monoxide monitoring for taxi vehicles (that either occurs periodically or at the time of service). The TSC found that while carbon monoxide alarms are freely available and for a reasonable cost, they do not appear to comply with an Australian (or equivalent) standard.

As part of the Victorian Government's commitment to reduce regulatory red tape, the Department of Economic Development, Jobs, Transport and Resources has, together with the TSC recently undertaken a comprehensive review of the regulations that apply to the commercial passenger vehicle industry:

- *Transport (Buses, Taxi-cabs, and Other Commercial Passenger Vehicles) Regulations 2016*, and
- *Transport (Taxi-cab Industry Accreditation) Regulations 2007*.

In doing so, many regulations have been allowed to lapse and others simplified. The changes – together with further proposed changes yet to take effect – aim to significantly reduce regulatory burden for the industry while retaining public safety and consumer protections.

As a result, the TSC no longer approves equipment (other than approved taxi-cab security cameras and taximeters) installed in taxi-cab vehicles. This means that taxi-cab operators can choose to install carbon monoxide alarms in their vehicles without requiring TSC approval.

Rather than mandating carbon monoxide monitoring, the TSC will continue to focus on educating and ensuring operators undertake regular vehicle maintenance as a means of minimising the possibility of carbon monoxide poisoning. This approach mirrors that deployed by Energy Safe Victoria (ESV), the regulator responsible for electrical and gas safety in Victoria. ESV does not endorse carbon monoxide alarms for domestic use as a method of reducing the threat of carbon monoxide poisoning, but strongly promotes regular maintenance of the source to minimise any possible occurrence.

However, as part of its safety strategy, the TSC will continue to monitor the prevalence of drivers resting in a vehicle with the engine running, identify opportunities to deter and manage the practice, and adjust its policy approach, as necessary.

Recommendation 2 statement of action: The Coroner's recommendation has been implemented.

In fulfilling its regulatory role, the TSC continues to educate industry participants about safety matters, including vehicle safety and fatigue management.

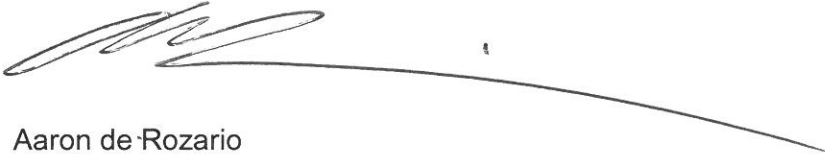
The TSC has developed and published on its website *Fatigue Management Guidelines* to assist drivers and other industry participants to understand, identify and avoid fatigue. The guidelines were developed in consultation with workplace safety and road safety experts in WorkSafe, VicRoads and the Transport Accident Commission and draw heavily on educational materials previously developed by these agencies.

While the intent of the TSC's *Fatigue Management Guidelines* is to educate drivers to avoid fatigue and therefore the need to rest in their vehicle at all, in July 2016, the guidelines were reviewed and, in response to this investigation, amended to explicitly advise drivers to turn off the engine while resting in the vehicle. A copy of the guidelines is attached for your information.

The TSC periodically communicates the guidelines to the taxi industry through a number of channels. These include the TSC's monthly online newsletter, presentations to stakeholder forums, articles in taxi industry publications, communications to peak bodies, and providing hard copies at the TSC customer service centre. The TSC intends to re-communicate the amended guidelines in the near future.

I trust that this information explains the TSC's actions to-date in response to the Coroner's recommendations. Should you require anything further, please do not hesitate to contact Virginia Thompson, Manager Operational Policy on (03) 8683 0625 or virginia.thompson@taxi.vic.gov.au.

Yours sincerely



Aaron de Rozario
Chief Executive Officer

Attachments:

1. *Fatigue Management Guidelines*

Fatigue management guidelines







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INTRODUCTION

Driver fatigue is not only a risk to the health and safety of commercial passenger vehicle (CPV) drivers – it is also a risk to the safety of passengers and other members of the public.

In Victoria alone, the effects of driver fatigue (such as falling asleep at the wheel or not being able to pay attention) are involved in more than 25 per cent of road crashes and have resulted in more than 60 deaths and 300-400¹ serious injuries each year.

Managing driver fatigue and making sure that CPV services are safe in Victoria is very important and will need the help of all those who work in the industry.

It is said that after 17 hours of being awake drivers have double the risk of an accident (the same as drink driving with a blood alcohol content level of 0.05) and after 22 hours the risk is five times greater. Shift workers are also six times more likely to be in a fatigue affected road crash than other workers².

1. WHAT IS THE PURPOSE OF THIS GUIDE?

This guide is for CPV drivers, operators and network service providers (NSPs), to help manage driver fatigue in the CPV industry. It will help everyone understand:

- what fatigue is
- how fatigue can affect the safety of CPV drivers and the public, and
- what can be done to reduce fatigue.

The information in this booklet should be used as a plan or guide to help improve the workplace safety of drivers, and the safety of passengers and other road users. This information is to be made available for everyone who works in the Victorian CPV industry.

2. WHAT IS FATIGUE?

It is normal to feel tired or drowsy at work sometimes, but fatigue is much more than this. Fatigue is a continued feeling of being tired, sleepy, or not having any energy that leads to a person being totally exhausted and not able to do normal things well.

Fatigue is the body's reaction to things such as little or no sleep, stress, working or driving during normal sleep times and other things such as a person's medical condition or the use of medication.

Shift workers are at greater risk as they are often trying to sleep when the body is most active (day) or trying to work when the body wants to be asleep (night). Working at night for most people particularly between the hours of 2am-6am can greatly increase the risk of having an accident.

1 Transport Accident Commission, *Reducing Fatigue – a case study*.
2 <https://www.vicroads.vic.gov.au/safety-and-road-rules/driver-safety/fatigue/fatigue-and-road-safety>



3. WHY DOES FATIGUE MATTER TO COMMERCIAL PASSENGER VEHICLE DRIVERS?

CPV drivers, because of their work and hours, are at risk of suffering from fatigue, which can have long term effects on their health. For example, one study has shown that taxis are approximately four and a half times more likely to be involved in a fatal accident than other vehicles³. Another study has shown a relatively high number of taxi accidents occurred between 2am and 4am, at times when drivers had often been working for up to 11 hours⁴.

CPV drivers must be especially careful to properly manage fatigue, for their own safety and the safety of passengers and other road users.

4. FATIGUE MANAGEMENT RESPONSIBILITIES FOR DRIVERS

Under Victorian occupation health and safety law, a self-employed person must, where possible, make sure that they are not exposed to any health and safety risks.

As a CPV driver you need to know if your working conditions might make you more likely to become fatigued and, if so, how you can take care of this so that you can work and drive safely.

3 Staysafe 36 (2007), as cited in Rowland, B.D., Freeman, J.E., Davey, J.D. and Wishart, D.E. (2007), 'A profile of taxi drivers' road safety attitudes and behaviours: Is safety important?', *Proceedings of the 3rd international Road Safety Conference*, Perth, Western Australia.

4 Dalziel, J.R. and Job, R.F.S. (1997), *Taxi drivers and road safety – A report to the Federal Office of Road Safety*, p.30.

5. EFFECTS OF FATIGUE

Falling asleep or 'nodding off' when driving is not the only sign of fatigue. It is important that anyone in the CPV industry be aware of the effects that fatigue may have on a person's health and work.

Short term effects of fatigue at work may include:

- falling asleep (for any amount of time)
- not being aware of your surroundings
- being unable to see risks (or possible harm)
- finding it hard to focus (or being easily distracted)
- low hand-eye coordination
- being unable to think clearly or logically
- not being able to make decisions
- being unable to talk or write clearly
- having difficulty controlling emotions or feelings
- higher chance of having an accident or injury
- making lots of mistakes
- reacting slowly to things, and
- being unable to remember things and events (in order).

If left unmanaged, the long term effects of fatigue on a person's health may lead to:

- heart disease
- diabetes
- high blood pressure
- gastrointestinal problems
- depression
- anxiety, and
- reduced testosterone levels in young men (and loss of sexual interest).



6. SIGNS OF FATIGUE

Being able to see the signs of fatigue can help you to decide if it is safe for you or someone else to drive. Always be aware of high fatigue risks that exist at night.

Some signs of fatigue are:

- not feeling refreshed after sleep
- poor concentration
- not being able to see clearly
- the need for longer sleep during breaks
- wanting things done quickly (or having a short temper)
- always yawning
- falling asleep at work
- fidgeting
- stretching
- sore or heavy eyes
- difficulty keeping eyes open and on the road
- having blurred vision
- difficulty remembering periods of time when driving
- poor control when driving a taxi or car
- difficulty maintaining steady speed, and
- drifting outside your lane.

Stop driving immediately if you find it hard to keep your eyes open and your head is nodding – these often happen after microsleeps. Microsleeps are very short periods of sleep you may not even be aware of.





7. CAUSES OF FATIGUE IN THE COMMERCIAL PASSENGER VEHICLE INDUSTRY

Many people drive CPVs while studying or as a second job, while other drivers may feel pressure to work long hours to make money to look after their family, to buy things they need or to make ends meet. These drivers may be putting themselves and others at risk every time they drive, unless they know some of the causes of fatigue and how to take care of it.

Fatigue can be caused by driving a CPV. It can also be caused by other things outside of work or a combination of these. It is important to understand some of the things that can cause fatigue and if possible to reduce or avoid these.

Some causes of fatigue may include:

FACTORS AT WORK	FACTORS OUTSIDE OF WORK
length of time worked	poor quality sleep
length of shifts	loss of sleep
number of consecutive shifts	busy social life
start and finish time of shifts (working at night increases the chance of fatigue)	family needs
not enough recovery time between shifts	other work (employment)
long periods of time being awake	study
shift patterns	travel time
not enough rest breaks	long periods of time being awake
bad weather or hard working conditions	sleep problems such as sleep apnoea or insomnia.
mentally hard work (for example, long times waiting for a passenger/fare or having to think quickly and clearly for long periods – often during times of high passenger demand).	

8. SLEEP

The only real way to treat fatigue is to sleep. The best sleep you can get is night sleep.

Aim to get seven and a half hours of quality (uninterrupted) sleep each day – sleeping too little or too long can cause fatigue.

If you are having less than six hours sleep each night or regularly over a weekly period, you will greatly increase your risk of fatigue. If you begin a shift after less than five hours sleep in the last 24 hours, your risk of an accident is up to three times higher.

Night shift workers will often have to sleep during the day. Sleeping during the day can be difficult due to the sunlight outside and the body not being ready to sleep. If you have to sleep during the day, make the room as dark and as quiet as possible and stick to a sleeping pattern. Allow a longer time for sleep than you usually would for sleeping through the night.

If you are unable to sleep or sleep well, snore a lot or have trouble breathing when sleeping, then seek medical advice.



9. WORK HOURS AND FATIGUE MANAGEMENT GUIDE

Long periods of driving can be a cause of fatigue. To lower the chance of driver fatigue you should check your shifts and make sure that the time and length of your shifts are not more than the suggested periods listed below:

- try to work/drive within the recommended hours of work guidelines below and keep a record
- if you study or drive a CPV as a second job, make sure you include study hours or hours you work at your first job in your calculations
- your risk of fatigue increases greatly if you have been awake for 17 hours or more
- when doing any calculations, start the 24-hour time period from when you woke up (not from when you started work).

You should not start a shift if you are likely to work more than the recommended hours listed below.

HOURS OF WORK		
Time period	Recommended maximum work hours (including breaks)	Recommended minimum continuous rest period
24 hours	12 hours	10 hours
14 days	144 hours	Two x 24 hours
28 days	288 hours	Four x 24 hours (spaced evenly throughout 28 days)

Long periods of driving without taking a break increases your risk of fatigue. Risks increase after two hours of continuous driving, and after 12 hours of continuous driving the risks become severe.

Note: Taxi operators are required to record the days, and the times during those days, when a person has driven the taxi-cab. Copies of the Taxi Services Commission (TSC) Driver Agreement template can be downloaded from the TSC website at taxi.vic.gov.au or picked up from the TSC Customer Service Centre, Lower Ground Floor, 1 Spring Street, Melbourne.

10. TIPS FOR DRIVERS ON AVOIDING FATIGUE

The best remedy for sleepiness is sleep, but in managing fatigue drivers should also consider the following tips:

Shift schedules

- Keep night shifts to a minimum (no more than four nights in a row).
- If changing from day to night shifts (or night to day), take a 24-hour break in between.
- Don't do quick shift changeovers, such as finishing at 11pm and starting again at 7am.
- Take a nap before working night shifts if you have not had enough sleep during the day.

Working/breaks

- Take plenty of rest breaks and drink water.
- Every two hours of driving without a break increases your risk of fatigue.
- Make sure that you allow enough time in your day for normal or extended uninterrupted rest periods.

Don't drive if you feel fatigued – if you notice that you may have 'nodded off', even for a second, stop driving/working straight away, take a nap or have a break and something to drink. It is strongly recommended that you turn the engine off when resting in the vehicle.

Drugs and alcohol

- Don't drink lots of alcohol – it affects the quality of your sleep.
- Don't take anything (that is, stimulants) to keep you awake – they delay the need for sleep.
- Avoid drinking any coffee or tea before going to bed.

The use of caffeine/coffee or other stimulants you might take to keep you awake do not replace sleep. Research has shown that activities such as turning up the radio, opening the window or using the air conditioner do not work to avoid fatigue. The use of these to stay awake to allow you to keep working or driving a taxi is not safe and is not ok.

Fitness

- Exercise regularly to stay fit and healthy.
- Keep a check on your weight – if you put on too much weight it may cause sleeping problems.

Medical conditions

- People who are heavy snorers or snore a lot may be experiencing obstructive sleep apnoea. This condition is common and can be treated.
- If you regularly feel sleepy while driving or often doze off during other activities or show symptoms of sleep apnoea, you should seek advice from a sleep specialist.
- If you have a medical problem including irregular breathing and/or insomnia you should seek advice from a doctor.
- Tell your operator about any medical conditions that may affect you being able to work or that could bring on fatigue.
- If your medication makes you drowsy or sleepy, ask your doctor to give you another type of medication. **Do not drive if you feel your medication is affecting you or your driving.**

11. INFORMATION FOR NETWORK SERVICE PROVIDERS AND TAXI OPERATORS

Fatigue management and the safety and wellbeing of drivers and members of the public are the responsibility of all industry participants.

Taxi operators must take reasonable steps to verify that a driver is of sufficient good health and fitness to operate the taxi-cab. It is good practice for operators to check that their drivers are not fatigued at the start of their shift.

Taxi operators must also be aware of their responsibilities under the *Occupational Health and Safety Act 2004*.

Network service providers (NSPs) and taxi operators should continuously support and promote this safety initiative and make use of the TSC's *Fatigue Management – Guidelines for the Victorian Taxi Industry* in their dealings with drivers.

- Accredited NSPs are encouraged to have procedures in place to check that their taxi operators / drivers do not work in excess of the maximum recommended hours outlined above.
- Any agreements between the NSPs and taxi operators should contain principles supporting fatigue management.
- Taxi operators could include systems and protocols in their driver agreement to check that all their drivers are fit to work at the start of their shift.
- Copies of the TSC Driver Agreement template can be downloaded from the TSC website at www.taxi.vic.gov.au or picked up from the TSC Customer Service Centre, Lower Ground Floor, 1 Spring Street, Melbourne.

A good practice approach could include operators ensuring they do not bail their vehicle out to a driver for periods of time in excess of the maximum work hours outlined in this guide.

12. RELATED DOCUMENTS

- *Transport (Compliance and Miscellaneous) Act 1983* (Vic.)
- *Road Safety Act 1986*
- *Occupational Health and Safety Act 2004* (Vic.)
- WorkSafe Victoria, *Fatigue – Prevention in the workplace*
- WorkSafe Victoria and Transport Accident Commission, *Guide to safe work related driving*
- Transport Accident Commission, *Reducing Fatigue – a case study*

13. ADDITIONAL SOURCES OF INFORMATION

- Taxi Services Commission – www.taxi.vic.gov.au
- WorkSafe Victoria – www.worksafe.vic.gov.au
- VicRoads – www.vicroads.vic.gov.au
- Transport Accident Commission – www.tac.vic.gov.au

For further information please contact
the Taxi Services Commission
on 1800 638 802 (toll-free) or visit
www.taxi.vic.gov.au

