

SUMMER EDITION, 2015

BUS**SAFETY
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Stephen Turner
Director, Bus Safety

FROM THE DIRECTOR

Welcome to the Summer edition of Bus Safety News.

Thursday 31 December 2015 marks a milestone for bus safety in Victoria. On the stroke of midnight the *Bus Safety Act 2009* (Vic) (BSA) will achieve full implementation with the cessation of deemed accreditation.

During the five year transition period over 650 operators of commercial bus services, deemed accredited on 31 December 2010, have applied to be, and been approved as, accredited bus operators. I congratulate these operators for their participation in this safety change process and my accreditation and registration team for their hard work in assisting these operators through the transition process. A team effort all round.

It would be fair to say that the transport task in Victoria is constantly under pressure. Our population, particularly in Melbourne, increases weekly and recent employment figures show upward trends in both job creation and Victorians securing work opportunities. These good things, however, mean that public transport patronage is steadily increasing. This in turn puts pressure on public transport providers to increase their services.

In this ever-changing supply versus demand scenario the safe delivery of bus services demands constant monitoring. Incident data gathered over the previous year has shown a number of interesting trends. Collisions between buses and other road vehicles, collisions with pedestrians and fires on buses have decreased compared with the last two years. There has however been a slight increase in the number of slips, trips and falls on buses and a significant increase in rocks being thrown at buses in some areas of our community.

In regard to the latter, the leadership of the Bus Association of Victoria

is to be congratulated for inviting operators, TSV, PTV, TWU, WorkSafe, VicRoads and Victoria Police to participate in developing strategies to address this unsafe anti-social behaviour. This initiative goes to the heart of the Bus Safety Act's principle of shared responsibility and recognises that it is only through a joint effort involving all stakeholders that lasting safety solutions will be found.

Another encouraging trend for Victoria is the steady increase in tourists numbers over the past year. This in turn has prompted an increased demand for tour and charter bus services, particularly in the commercial mini bus sector. While these operators only require registration, their lesser documentary and systems requirements do not excuse them from ensuring the safety of their bus service.

At a recent compliance operation TSV jointly undertook with Victoria Police, a number of tour and charter operators were found to be deficient in meeting their safety obligations. Safety underpins the experience visitors to Victoria have. If there is one message readers can take from this edition of Bus Safety News, it is that TSV will be continuing to focus on the safety of this section of Victoria's bus industry in 2016.

I invite our readers and bus safety stakeholders to read through the articles and information contained in this Summer edition of Bus Safety News.

On behalf of TSV's bus safety team I extend to you all our best wishes for the festive season and our hope that you and your loved ones enjoy a prosperous and safe 2016.

STEPHEN TURNER
Director, Bus Safety



NEW GUIDANCE – DETERMINING SAFE CARRYING CAPACITY

In early October TSV sent out to relevant bus safety stakeholders a consultation draft concerning how bus operators may go about meeting their obligation under Bus Safety Regulation 5. This Regulation prescribes how operators are to determine the maximum number of passengers that may be safely carried on an operator's bus.

The motivation for TSV to develop this draft guidance was generated by the fact that:

- over the past four years bus operators have requested more detailed guidance on how they should go about this matter than was available from reading Regulation 5
- not all buses are fitted with compliance plates that record the manufacturers specified carrying capacity. This is particularly the case where a bus has been designed to carry standees and or wheelchairs
- where carrying capacity is provided on the compliance plate on a bus that is not designed to carry standees or wheelchairs, it lists all adult seats including the driver.

The consultation draft was forwarded to 2700 industry entities whose email contact details were held by TSV including operators, licensed bus testers and other relevant bus safety stakeholders such as the Bus Association of Victoria.

The consultation period ended on 31 October and TSV received 24 replies (including BAV's response which draws on the knowledge and experience of its more than 400 members) providing comments and suggestions for improving the utility of the guidance for operators.

The overwhelming response to the draft guidance has been positive.

Several responders did comment on the depth and complexity of the guidance and provided very helpful suggestions as to ways in which to make the guidance more readable and user friendly. TSV greatly appreciates these suggestions and comments and is working on incorporating them into the final document.

Two very important and closely related safety factors were raised by a number of responders – the possibility of exceeding gross vehicle mass (GVM) and the specific operating environment of individual bus services.

This highlights the need for bus

operators to be aware that simply complying with Regulation 5 – whether through utilising the methodology provided in the guidance or by some other method – does not excuse an operator from their primary obligation. That obligation is to ensure, so far as is reasonably practicable, the safety of each of their bus services. There is more to ensuring the safety of a bus service than just considering the carrying capacity of the bus being used to provide the service.

To illustrate the potential risks of neglecting to consider GVM we must first consider the Australian Design Rules (ADR) which are used by bus manufacturers when designing a bus. ADR 58/00 Requirements for Omnibuses designed for Hire and Reward specifies the following requirements for the construction of omnibuses designed, and intended for licensing, hire and reward.

It states "In determining the occupant capacity on an omnibus, the loading

condition shall be that in which a mass of 65 kg is located in each 'Manufacturer's' nominated seating and standing positions for driver, passengers and crew". For buses where luggage space is provided, other than for personal hand luggage, ADR 58/00 allows that "a mass of 15 kg shall be added for each passenger and shall be distributed uniformly throughout the luggage space".

With the above in mind it is important to consider the number and potential 'mass' of the passengers to be carried on the bus service.

In 2011 the Federal Transit Authority in the United States revised their guideline for the "assumed weight per bus passenger" from 150 pounds (68 kilograms) up to 175 pounds (79.3 kilograms).

One passenger transport industry that takes a special interest in passenger weight is the airline industry - passenger weight is both critical to safe aviation operation and to the cost of delivering airline services. The US Federal Aviation Authority sets an average adult passenger weight of 86 kilograms in summer and 88 kilograms for winter - both these are inclusive of hand luggage but do not include any other passenger baggage.

In 2009 the European Aviation Safety Authority (EASA) conducted a comprehensive survey of passenger weight. EASA weighed 22,901 passengers. The findings from this survey was an average male adult weight of 94 kilograms and an average female weight of 75 kilograms. Australia's adult population is very similar to those of North America and Europe. Given this, the only reasonable conclusion is that there is a less than medium probability that the average weight of adults boarding a bus in Australia will be less than 65 kilograms and a greater than medium probability that a bus which is carrying adults in every seat will be over its GVM.

To ensure the safety of their bus service, operators also need to consider the operating environment of each of their bus services. What are the potential hazards and risks associated with the service?

The safety of a bus service will be contributed to or threatened by the following matters:

- road conditions
- speed limits
- traffic densities
- traffic compositions
- weather conditions that may be encountered during the journey
- the speed at which the bus will be operated

SEASONAL RISKS - SUMMER

It is a good idea to review risks registers as seasons change and new risks emerge or old ones become more pertinent. Summer brings with it some significant safety risk sources for bus operators and bus stop risk managers.

Bush fires - Bus operators should exercise caution when operating buses in bushfire prone areas. Operators should use all information resources when operating in areas where it is known bushfires are present and have contingency plans for operating in areas which may be affected by bush fires. Staff should have access to communications media to receive updates and be trained in appropriate emergency procedures. School staff and others responsible for bus stops should remain vigilant to changing conditions and have contingency plans in place for when bus stops may be directly affected or in danger of being affected by bush fires. References for updated bush fire warnings can be found at :

The CFA website:
<http://warnings.cfa.vic.gov.au/#map>

The VicRoads traffic website:
<http://traffic.vicroads.vic.gov.au/>

On a related note, on-board fire extinguishing systems should be subject to appropriate inspection and maintenance regimes to reduce the likelihood of bus fires becoming uncontrolled. Methods to ensure the safe and timely evacuation of passengers from buses should be considered and practised, where appropriate.

Heat exhaustion - Many people can be adversely affected by high temperatures and extended exposure

to hot weather can result in bus safety workers and/or passengers suffering from heat exhaustion. Good risk management practice should consider staff and/or passengers being affected by heat.

Sun glare - Sun glare can be distracting for drivers and adversely affect the safety of bus operations. Good risk management practice may include changing the timing of operations to reduce occasions where drivers need to drive into the sun. Revised routing to avoid driving into sun is another mitigation strategy which could be considered.

Fatigue - Hot weather makes it difficult for all of us to get adequate rest, particularly at night time. During Summer, bus operators and bus safety workers should be particularly vigilant in ensuring that adequate, good quality rest is achieved before performing bus safety work.

Bus maintenance - Hot weather may cause bus cooling systems to work harder to keep buses and occupants cool. A failure of cooling systems can be a risk source to either buses themselves or passengers. Good risk management practice should involve closely monitoring cooling systems and having a failure mitigation strategy.

This list is not exhaustive and all those with safety duties should ensure they are suitably prepared for the risks that Summer brings.

- the likelihood of diversions from the planned route
- the hazards that could be associated with any diversion.

In closing this article, these are the take home messages:

- the carrying capacity guidance (once finalised and published) is only intended to be a tool that assists bus operators to meet their Bus Safety Regulation 5 obligation

- the ADRs set passenger mass at 65 kilograms
- based on international surveys, it cannot be expected that 65 kilograms will be the average weight of adults using a bus service
- most importantly, there are many hazard and risk factors that must be taken into account and either eliminated or reduced, so far as is reasonably practicable, to ensure the safety of a bus service.

Managing safety at bus stops: guidance for sharing responsibility

Example risk register for managing safety at bus stops



BUS STOP GUIDANCE MATERIAL NOW ON OUR WEBSITE

The *Bus Safety Act 2009* (Vic) (BSA) identifies that the safe operation of bus services is the shared responsibility of:

- operators
- bus safety workers
- procurers
- persons who determine the location of bus stopping points, or who design, construct, install, modify or maintain a bus stopping point or bus stop infrastructure
- the Safety Director
- members of the public.

It documents the following principles:

- the level of a party's responsibility for managing risk depends on the nature of the risk their actions pose and their capacity to manage the risk;
- managing risks associated with the provision of bus services is the responsibility of the person best able to control the risk; and
- parties responsible for the safe operation of bus services should be involved in the formulation and implementation of measures to manage risks to safety associated with the provision of bus services.

The BSA also imposes a duty on those persons who determine the location of bus stopping points or those who design, construct, install, modify or maintain them (or bus stop infrastructure) to ensure that bus stopping points are safe so far as is reasonably practicable. Failure to do so may be seen as a breach of safety duty and result in significant penalties.

The duty extends to persons who engage others to do any of these things. All parties with safety responsibilities need to realise and accept this shared responsibility and be involved in decision-making. This is particularly crucial at bus stops where multiple parties share risk management responsibilities. One method responsible parties may use in risk management decision-making around bus stops is via the use of a formal, shared risk management process. TSV has developed some guidelines with this in mind.

The guidelines are intended to:

- explain the concept of so far as is reasonably practicable (SFAIRP)
- advise readers of appropriate resources for developing safety risk management frameworks in relation to managing shared risks to bus stop safety
- propose a method by which a risk management framework could be developed and implemented.

Another document, Example risk register for managing safety at bus stops, is designed to show a step-by-step process for developing a risk register. It should be read in conjunction with *Managing safety at bus stops: guidance for sharing responsibility*.

The documents can be found on the website at:

<http://transportsafety.vic.gov.au/bus-safety/safety-duties/designers-and-installers-of-bus-stops>.

DEEMED ACCREDITATION CEASES

As the year quickly comes to a close so does the deemed accreditation period.

For those operators who have achieved accreditation under the *Bus Safety Act 2009 (Vic)* (BSA) congratulations and well done. You will have since received your new certificate of accreditation, and a copy of your new prescribed conditions and legislative obligations document.

For those operators who have elected not to pursue accreditation under the BSA, it is important to note that as of 31 December 2015 your deemed accreditation will cease and you cannot legally operate a commercial or local bus service in Victoria. Should you choose to operate a commercial or local bus service after this date without the appropriate accreditation you will be in breach of the BSA.

TSV has consistently communicated the need for deemed accredited operators to apply for and achieve accreditation under the BSA since its inception on 31 December 2010. The Safety Director will treat those who have failed to do so, and continue to operate, with the full force of the law.





REGISTERED BUS OPERATORS AND ANNUAL BUS SAFETY INSPECTIONS

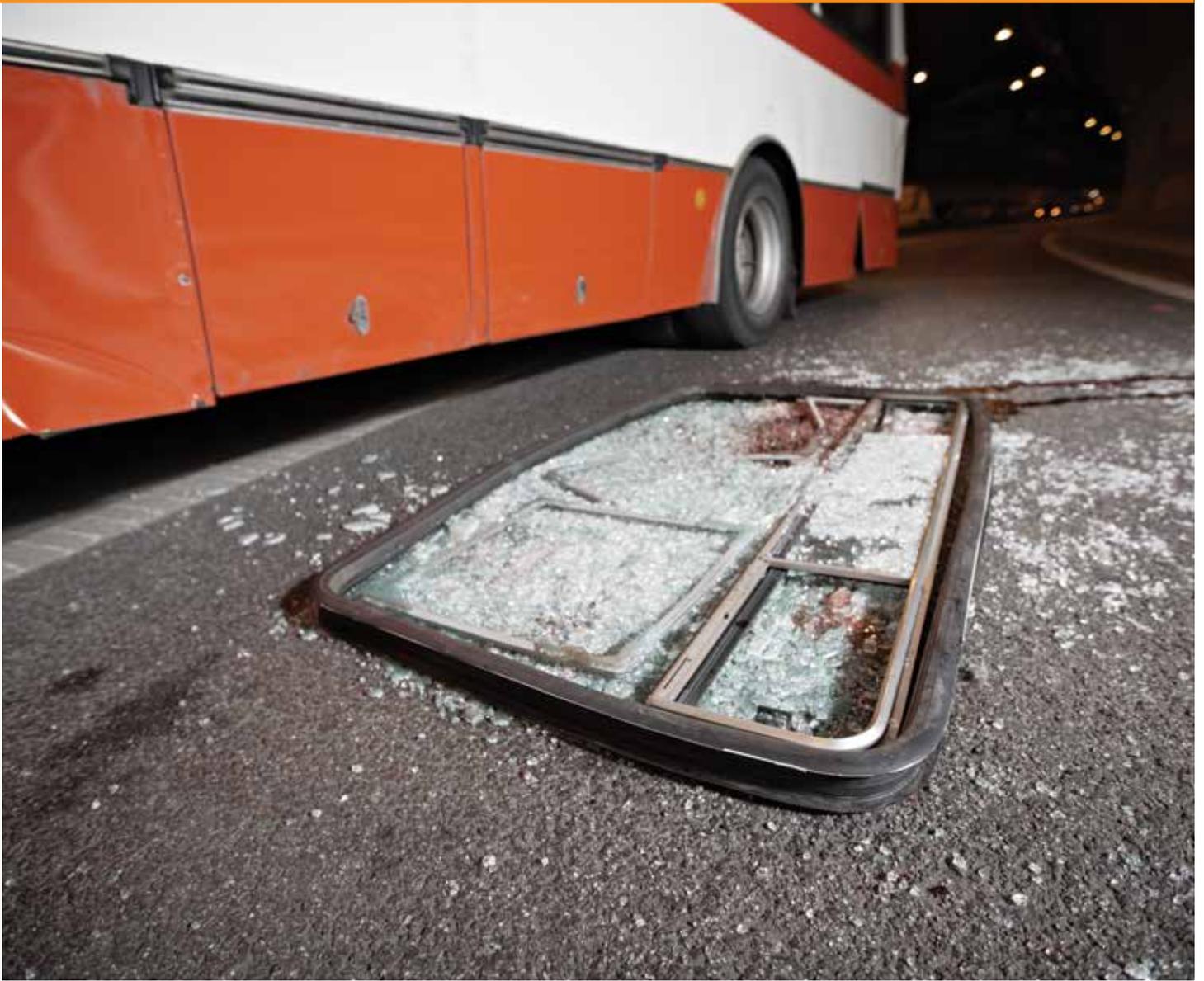
Regulation 23 of the Bus Safety Regulations 2010 (Vic) requires registered operators to ensure that their buses have an annual safety inspection.

The inspection must be carried out by a licensed bus tester (LBT). The first inspection of the bus must take place within 365 days following registration of the bus operator, or, if the bus is acquired after registration, within 365 days following its acquisition. Each subsequent annual bus safety inspection must be conducted not

earlier than 14 days before, and not later than 14 days after, the anniversary of the date on which the first inspection is conducted. It is important to note, only LBTs may carry out an annual safety inspection.

In Victoria, LBTs are licensed by VicRoads. Inspections carried out

by anyone other than an LBT will not be accepted by TSV as a valid annual bus safety inspection. For the location of your nearest LBT, contact VicRoads.



PENALTIES FOR FAILING TO REPORT BUS INCIDENTS

In the Autumn 2015 edition of BSN we reminded bus operators of their obligation to report bus notifiable incidents to TSV (Bus Safety Regulation 24).

Although there has been an improvement in the reporting of bus incidents, TSV's records indicate some operators are still failing to provide both the oral and written notification.

Reporting bus incidents is important for two reasons. Firstly, the timely notification of incidents allows an investigation to be commenced while the circumstances of the incident are still fresh in the minds of those involved and while evidence of the causal factors is readily available.

Secondly, trend analysis of bus incidents allows significant safety themes to be identified and industry wide action to be undertaken to reduce these events in the future.

The timely reporting of bus incidents is essential if we are to continue to improve bus safety for the benefit of all Victorians.

Accredited and registered bus operators must:

- orally notify the duty officer as soon as possible after becoming

aware that the bus incident has occurred (1800 301 151), and

- provide a written notification within 72 hours after the bus incident.

As from 1 January 2016 bus operators who do not report bus incidents in accordance with Bus Safety Regulation 24 will be issued with an infringement notice. The penalty for failing to notify the Safety Director of a prescribed incident is currently four penalty units (\$607.00).



FORTHCOMING BUS SAFETY FORUMS

The bus safety forum program this financial year commenced in Shepparton during September and the second was held in Traralgon earlier this month. In 2016 we will be visiting Horsham in February, Melbourne in April and Hamilton in May.

New topics have been introduced including a presentation by officers from the Victoria Police Heavy Vehicle Unit on driver fatigue management and driver work diary requirements. So come along to one of the forums where you can chat with the bus team in an informal environment.

The forums are currently scheduled to be held between 7 pm and 9 pm however we welcome feedback on the preferred timing. Should you have a preference for after hours or during business hours please send us an email titled "Bus Forum Times" to information@transportsafety.vic.gov.au.



RISK OF WHEELS DISLODGING FROM BUS AXLES

In April 2013 the Director Bus Safety issued a safety alert concerning the risk of wheels dislodging from bus axles. The safety alert recommended that operators review their pre-trip inspection process and consider engineering controls such as wheel nut indicators or wheel nut link retainers to reduce the risk of wheel nuts loosening.

Earlier this year an operator experienced wheels dislodging from two buses which were fitted with wheel nut link retainers.

In addition to having wheel nut link retainers fitted on the rear axles, the operator also had a procedure for tensioning wheel nuts.

Although the operator conducted an extensive investigation into the two incidents, which included

consultation with the manufacturer of the wheel nut link retainers, the reason for the wheel nuts unwinding was inconclusive.

Operators should ensure that if wheel nut link retainers are fitted to their buses they are installed correctly and that persons conducting the pre-trip inspections or scheduled safety inspections continue to inspect wheel nuts for tightness.



TOTAL LOSS OF A BUS

A simple mistake has led to the total loss of a bus.

While providing a school run in the north eastern suburbs of Melbourne the driver of a 24 seat bus noticed smoke coming from the engine hatch. The driver immediately manoeuvred the bus off the roadway and evacuated the remaining three students to a safe location. The driver attempted to remove the engine hatch to extinguish the fire; however, this was impossible due to the heat coming from the engine bay.

The driver called triple 0 and while

awaiting the fire services attempted to extinguish the fire from outside the bus. The fire services attended the scene after about 15 minutes and extinguished the fire which fortunately had not spread to the fuel tank.

The investigation into the cause of the fire identified that a rag used when checking the engine oil level during the daily start-up safety check had been left on the engine manifold. The heat from the engine resulted in

the oily rag catching fire and this then spread to other combustible engine components around the manifold.

While the quick action of the bus driver helped prevent the fire spreading to the interior of the bus, the insurance company declared the vehicle a total write-off.

The photograph above of the engine manifold shows the remains of the oily rag still in place on the engine manifold and the fire damage in the engine space.

Bus safety workers are reminded to be vigilant – particularly when undertaking maintenance and inspection of engine bays and other areas on a bus that are not readily visible during pre-trip inspections. Complacency can be catastrophic resulting in an immediate risk to safety of persons and significant damage to buses.



SUMMARY OF COMPLIANCE ACTIVITIES

BSV's infield compliance operation program continues to identify operators and buses that are not achieving the required level of safety. Over the previous few months BSV has conducted infield bus compliance activities at Mt Buller, Yarck weighbridge and the 12 Apostles with officers from Victoria Police.

Where non-compliance is found, bus operators and bus safety workers may be subject to enforcement action that ranges from fines and defect notices, to improvement and prohibition notices.

The table below details the outcomes of the compliance activities conducted.

Mt Buller

- A bus driver received an infringement notice from Victoria Police for failing to complete the driver work diary as required.

Yarck weighbridge

- Defect notice issued for a cracked windscreen and number plate light not functioning.
- Defect notice issued for defective tyres.
- Infringement notice issued to driver for not recording his base (starting point) in work diary.
- Infringement notice for driving an unregistered bus.

12 Apostles visitors carpark

- Two defect notices were issued to operators for unroadworthy tyres.

- Two bus drivers received infringement notices for work diary offences.
- TSV issued two bus operators with infringement notices for failing to ensure fire extinguishers fitted on the bus were operational.

BSV is following up these non-compliances with the applicable bus operators.

Matter	Accredited bus operator	Registered bus operator	Bus operator - not accredited or registered	Total
Number of buses inspected	55	4	-	59
Fire extinguisher not maintained in an operating condition	6	1	-	7
Defective tyres	3	-	-	3
Work diary issues	5	-	-	5
Infringement issued	6	1	-	7
Defect notice	4	-	-	4

INTRODUCING OUR NEW SAFETY DIRECTOR - DAVID HOURIGAN

Transport and economic policy specialist, David Hourigan, has taken the steering wheel as our new Director, Transport Safety.

During his career, David has led major policy programs, regulated industry sectors, and driven service delivery projects in consultation with the Federal Government, other state jurisdictions and the private sector.

Of particular interest to the bus industry, David, as Executive Director, Passenger Transport Division, Department of Transport and Main Roads, Queensland, was responsible for state-wide laws, policy and administering long distance, as well as regional, urban and school bus services.

David is keen to strengthen and improve bus safety outcomes across the State. A key priority will be to consult and work collaboratively with key stakeholders, such as industry peak bodies, operators, businesses, government departments, the National Heavy Vehicle Regulator and customers of transport services.

David has met with Bus Vic and discussed various safety issues including:

- the general safety of drivers and passengers in both metropolitan and regional Victoria

- the specific safety of drivers and passengers in relation to drug and alcohol use (by drivers or passengers) and rocks thrown at buses
- the implications for bus operators from disruptions to routes and timetables brought about by road closures due to the removal of level crossings
- the pressures on safety when managing these changes.

These and other priorities will help to ensure Victoria has a safe and efficient transport system that underpins the State's economy.

"I am keen to listen to and work with the industry so that we can achieve the safest outcomes as effectively as possible," said David.



David Hourigan
Director, Transport Safety



BRAVO ZULU

The Bus Safety team sends a big WELL DONE to Bacchus Marsh Coaches and Gold Bus for their proactive approach to safety. They asked BSV if they would conduct two bus safety sessions in November for their school bus clients. In all 41 staff from 24 schools across the Ballarat, Bacchus Marsh and Macedon areas attended the sessions.

The sessions were facilitated by Andrew Chlebica, (Manager Compliance and Information) and Bus Safety Compliance Officer Sue Hoskins. The sessions covered such matters as safety duties, pre-trip inspection requirement, bus safety risk management and incident reporting.

This is the second year these special interest bus safety sessions involving TSV, Bacchus Marsh Coaches/Gold Bus and the schools that contract bus services from these two operators

have been conducted. Engagement and interaction of this kind is essential to maintaining Victoria's strong bus safety performance into the future.

Any other bus operators who may wish to engage in a similar way with their clients and customers can contact Andrew Chlebica on 03 9655 6873 or by email to andrew.chlebica@transportsafety.vic.gov.au to discuss how TSV can assist you and your customers in improving bus safety.

I want to...

- > Operate a bus service in Victoria
- > Charter a bus service in Victoria
- > Apply for bus operator accreditation
- > Apply for bus operator registration
- > Update my details
- > Report a bus safety incident
- > Find a licensed bus tester
- > Check my safety duties
- > Request a review
- > Check bus safety legislation
- > View safety alerts
- > Download a publication or form

We are committed to achieving
safe bus transport for the benefit
of all Victorians.

Bus Safety Victoria is a branch of Transport Safety Victoria - the state's safety regulator of public transport.



Latest news



Rogue tour bus operators targeted at Twelve Apostles
> [Read more](#)



Incident statistics for Q3 2015
> [Read more](#)



Bus Safety News out now
> [Read more](#)

[View all](#)

NEW BUS SAFETY WEBSITE

Late last month we launched a new Bus Safety Victoria website - transportsafety.vic.gov.au/bus-safety. The new site is far more task focussed, making it easier for bus operators, and the Victorian public, to find the information and resources they need. Importantly, unlike the old site, this one is mobile responsive, meaning it looks the same whether you access information from a PC, laptop, tablet or smart phone.

Other new features include a Twitter feed on the homepage, which is a great way to stay in touch with the latest bus safety news from across Australia and around the world.

We would love to hear what you think about the new site, including any extra features or content you would like to see. You can email your feedback to information@transportsafety.vic.gov.au

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