



Office of Transport Safety Investigations

BUS SAFETY INVESTIGATION REPORT

**SYSTEMIC INVESTIGATION INTO THE IMPORTATION
AND REGISTRATION OF OVERSEAS-SOURCED BUSES
IN NSW**



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The Office of Transport Safety Investigations (OTSI) is an independent NSW agency whose purpose is to improve transport safety through the investigation of accidents and incidents in the rail, bus and ferry industries.

Established on 1 January 2004 by the *Transport Administration Act 1988*, and confirmed by amending legislation as an independent statutory office on 1 July 2005, OTSI is responsible for determining the causes and contributing factors of accidents and to make recommendations for the implementation of remedial safety action to prevent recurrence.

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GLOSSARY OF ABBREVIATIONS

ADRs	Australian Design Rules for Road Vehicles: the national standards under the <i>Motor Vehicle Standards Act 1989</i> .
AUVIS	RTA Authorised Unregistered Vehicle Inspection Scheme.
DOTARS	Federal Department of Transport and Regional Services.
GVM	Gross Vehicle Mass: the maximum laden mass of a motor vehicle as specified by the manufacturer.
ISO 9001:2000	An international standard, published by the International Organisation for Standardisation, on the requirements of quality management systems.
MD	The Light Omnibus vehicle category under the national standards, defined as an omnibus with a GVM not exceeding 5.0 tonnes. This category is further divided into four sub-categories based on GVM and the number of seating positions.
ME	The Heavy Omnibus vehicle category under the national standards, defined as an omnibus with a GVM exceeding 5.0 tonnes.
MoT	The New South Wales Ministry of Transport.
OTSI	The Office of Transport Safety Investigations.
RAWS	Registered Automotive Workshop Scheme administered by DOTARS.
RTA	New South Wales Roads and Traffic Authority.
RVCS	Road Vehicle Certification Scheme administered by DOTARS.
SEVS	Specialist and Enthusiast Vehicle Scheme administered by DOTARS.
VCCS	Vehicle Compliance Certification Scheme, proposed but not yet implemented by the RTA.

EXECUTIVE SUMMARY

Background

On 5 September 2005, a driver with only five weeks driving experience in Australia lost control of a bus carrying 24 occupants while descending Jamberoo Mountain Road. The bus was travelling on a section of road signposted as not suitable for trucks and coaches. The bus subsequently crashed through a guardrail and overturned. Two passengers died at the scene and a third died later in hospital as a result of injuries sustained in the crash.

OTSI's investigation into this accident established that the driver lost control of the bus because of poor driving technique which caused the bus's brakes to overheat. It also established that at the time of its importation as a second-hand vehicle into Australia, the bus had been equipped throughout with seat belts but that these had been removed because they, and the associated anchorages, did not meet the related Australian Design Rules (ADRs). The bus was then presented for registration as a commercial vehicle in NSW by the importer. Although the bus did not meet the specific ADRs relating to seat-belts, and therefore the requirements for registration as a commercial vehicle in NSW, it was registered. Concerned by this and other anomalies, the Chief Investigator initiated a 'systemic' investigation into the importation and registration of buses from overseas for commercial operations in NSW.

Findings

In relation to those matters prescribed by the Terms of Reference as the principal lines of inquiry, OTSI finds as follows:

- a. **Rules Governing the Importation into NSW of Buses Sourced from Overseas**
 - i. The importation of buses into Australia is governed nationally by the *Motor Vehicle Standards Act 1989* and its requirements apply irrespective of the State through which the bus is imported.

- ii. Buses with 12 or more seats or with a Gross Vehicle Mass (GMV) of 12 or more tonnes which were built on, or after, 1 January 1989 and imported as used buses must be fitted with an approval plate, and must meet the safety requirements applying at the time the plate is fitted. Effectively, this means that such buses must meet the same safety requirements as a new bus.
- iii. Buses built before 1 January 1989 may be imported without being required to meet the passenger safety requirements set out in the *Motor Vehicle Standards Act 1989*. The effect of this concession is that a bus built in December 1988 or earlier, can be imported in 2008 provided it meets the safety requirements that were in force in Australia at the date of its manufacture, whereas a bus built in January 1989 or later must meet the safety requirements in force at the time its approval plate is fitted. However, import approval imposes the condition that such buses meet the registration requirements imposed by the State/Territory in which the bus is to be registered. This means that a bus imported on the basis of this concession cannot be registered in NSW, as NSW alone requires such buses to meet the requirements applying at their date of importation. OTSI notes that the significance of this anomalous situation is diminishing with time, as there is a small and decreasing demand in the marketplace for buses of such an age that they are eligible for importation under this concession.
- iv. The safety standards buses are required to meet upon importation are also determined by the types of services which the buses will be providing. Buses intended for regular passenger services on which there may be both standing and seated passengers, are not required to be fitted with seat belts for other than drivers. Buses intended for long distance charter and other operations where standing passengers are not carried, must generally be fitted with seatbelts throughout. An exception to this requirement applies in

the case of passenger seats with low seat backs¹, which are only required to have seat belts if the seats are not considered to be 'protected'². All new large buses except those satisfying criteria relating to low floor height³, must also meet rollover strength requirements.

- v. The provision for protected seats with low backs to be exempt from the requirement to be fitted with seat belts has permitted importation of new buses that are commonly used for highway operations, where the majority of passengers are not provided with seat belts. That this should be possible in a country long recognised internationally for leadership in vehicle occupant protection is regrettable, and OTSI is aware of at least one incident in which passenger deaths could most likely have been prevented by the provision and wearing of seatbelts in such a vehicle.⁴ When OTSI became aware of this anomaly, the focus of the investigation was broadened to consider this aspect of new buses as well as issues surrounding the importation and registration of used buses.

b. Processes for Licensing/Registration of Imported Used Buses for Commercial Operations in New South Wales

- i. NSW requires that a bus imported from overseas must meet the national standards (ADRs) applicable at the date of its importation if it is to be used as a public passenger vehicle⁵.
- ii. The procedure for demonstrating that an older bus has been upgraded to meet current ADR requirements involves assessment and certification of the bus by a consulting engineer acceptable to

¹ A seat with a low back is one with a *Reference Height* not greater than 1 metre. The definition of *Reference Height* may be found in *ADR 68/00*, but in simple terms, it is the vertical height from the floor beneath the heels of a seated occupant, to the top of the seat back.

² A protected seat is one that has screening in front of it which meets set criteria, and which may be in the form of a seat back or a suitably positioned vertical surface.

³ A bus with low floor height is one with a required amount of the upper surface of the floor between its axles not more than 550 mm from the ground. For buses with a wheelbase of 6.5 metres or more, the required amount is 75%.

⁴ This incident occurred on the Hume Highway near Goulburn in May 2005, and resulted in the death of two unrestrained occupants who were ejected when a vehicle overturned at speed, when all occupants who remained in the vehicle survived.

⁵ Road Transport (Vehicle Registration) Regulation 1998, Schedule 4, Part 1, Division 2, paragraph 7(a).

the NSW Roads and Traffic Authority (RTA) (an “Engineering Signatory”). After any modifications that are found necessary have been carried out and assessment completed, the Engineering Signatory produces a report that must be tendered by the applicant at the time of registration.

c. Appropriateness and Adequacy of the Rules and Processes Governing Importation and Commercial Registration in NSW of Buses from Overseas

- i. NSW is alone in requiring that all buses imported from overseas, irrespective of their date of manufacture, must meet the national standards applicable as at the date of importation if they are to be licensed within NSW as public passenger vehicles. By way of example, a large bus built overseas in 1988 and imported into Australia in 2008 would have to be fitted with seatbelts throughout (subject to the exceptions already mentioned); seats and their anchorages would be required to meet stringent strength requirements; at least six seats would have to be equipped to accept child restraints⁶, and rollover strength requirements would have to be met, before it could be licensed in NSW for long distance commercial operations. A similar bus would not be subject to these requirements in other States.
- ii. Notwithstanding the obvious merits of NSW’s position, the NSW RTA is finding it difficult to sustain its position in requiring that all imported buses meet the safety standards that are applicable at the time of importation, in the face of calls for a uniform national approach and the reality that there is little to prevent commercial bus operators from registering their buses in another state and continuing to operate in NSW.
- iii. The RTA has developed a procedure within NSW using Engineering Signatories to certify that imported buses meet current ADR requirements. In theory, this should ensure that the

⁶ These requirements are included in *ADR 68/00*.

safety standard achieved by these buses is at least equivalent to that required of new buses. In practice, however, there is evidence that this end has not always been achieved, due in part to the fact that Engineering Signatories have not applied the standards consistently, and also because the RTA's registration procedures have not detected all instances where the vehicles have not been brought up to the required standard.

d. Other Safety Matters

- i. Holders of overseas licences must satisfy the same requirements as an Australian citizen when applying for a public passenger vehicle driver's authority. They must first obtain an Australian licence in the appropriate category, and unless they are from a country considered to have requirements equivalent to those of Australia, they must pass knowledge and driving tests appropriate to the licence category. Significantly, however, the knowledge test can be taken in a foreign language. This can lead to a situation where a driver who has very limited English language comprehension and very limited experience of driving in Australia, and who may have only a limited capacity to comprehend other than basic road signs⁷, can become the holder of a public passenger vehicle driver's authority shortly after arrival in Australia.

Recommendations

In order to address the issues raised, the following remedial safety actions are recommended for implementation by the organisations specified below:

a. NSW Roads and Traffic Authority

- i. Request a review by the Department of Transport and Regional Services of the concession that allows the importation of pre-1989

⁷ In this context, the term "basic ... signs" refers to those that are in common usage throughout Australia and that use simple instructions such as "STOP", together with easily understood graphical depictions of the action that is required.

buses that do not meet current safety standards, with a view to the removal of the concession.

- ii. Review the training and information provided to Authorised Unregistered Vehicle Inspection Scheme inspectors to ensure that they are aware of the importance of thorough design checks on the vehicles they inspect.
- iii. Remove the anomaly which permitted some types of new buses in NSW that were not intended to convey standing passengers to be registered even though they were not fitted with seatbelts throughout.
- iv. Require all applicants for LR, MR and HR class driver licences to undertake and pass a road knowledge test in English.

b. Ministry of Transport

- i. Institute a requirement for all applicants for a public passenger bus driver's authority to provide evidence that they have been examined and passed the road knowledge test in English.

PART 1 INTRODUCTION

Background

- 1.1 In the course of an investigation into a bus accident at Jamberoo that resulted in three fatalities, the Chief Investigator became aware of the possible existence of a number of matters associated with the importation of buses sourced from overseas, and their subsequent registration for commercial operation in NSW, that may not be in the public interest. On the basis of his concerns, which pertained to the level of safety features required in imported second-hand buses and the procedures for issuing authorities to drivers of public passenger buses, the Chief Investigator determined that it was appropriate that these matters be the subject of a systemic investigation by OTSI.
- 1.2 The Terms of Reference issued to the Investigating Officer in Charge required him to:
- a. identify the rules governing the importation into NSW of buses sourced from overseas;
 - b. identify the processes by which buses sourced from overseas are licensed for commercial operation in NSW;
 - c. assess the appropriateness and adequacy of the rules and processes governing the importation of buses sourced from overseas, and of the processes by which those same buses are licensed for commercial operation in NSW, and
 - d. propose any course of action arising from the investigation that would enhance the safety of bus operations in NSW.

Rules Governing the Importation into NSW of Buses Sourced from Overseas

- 1.3 The importation of buses is governed by Commonwealth legislation. The *Motor Vehicle Standards Act 1989* and *Motor Vehicle Standards Regulations 1989* make it an offence to import, sell or present new or

used imported vehicles to the Australian market for the first time unless they meet the national standards, except in circumstances where an exemption has been granted by the Administrator of Vehicle Standards⁸. The *Motor Vehicle Standards Regulations 1989* states that unless indicated otherwise, the Australian Design Rules (ADRs) are the national standards under the Act.

- 1.4 In order to operate on public roads within Australia, an imported vehicle must be registered in an Australian State or Territory. Registration of vehicles in New South Wales is administered by the NSW Roads and Traffic Authority (RTA).
- 1.5 The following schemes are available for the importation of buses into Australia, and hence into NSW:
 - a. Full Volume Certification (New Vehicles)
 - b. Low Volume Certification (New Vehicles)
 - c. Specialist and Enthusiast Vehicle Scheme

Full Volume Certification (New Vehicles)

- 1.6 Full volume certification, permitting the importation of an unlimited number of vehicles, is by type approval, so that once a vehicle representative of the type (i.e., make and model) being certified has been tested and found to comply, other vehicles of that type are deemed to comply.
- 1.7 To obtain full volume certification, a wide range of tests, including some of a destructive nature, must be carried out. This involves the use of sophisticated testing methodology and equipment and incurs considerable expense.
- 1.8 In the case of large buses (i.e., buses built to take full advantage of mass and size limits), a major proportion of the construction is generally carried out in Australia, using a combination of imported and local components made by a number of different manufacturers.

⁸ Vehicle Standards Bulletin 10, *Importing Vehicles to Australia*, Department of Transport and Regional Services, 15 November 2005.

Consequently, certification is generally effected by the local company that completes construction. Smaller buses are generally imported in a registrable or near-registrable form, with certification effected by the manufacturer or its local agent.

- 1.9 Once the necessary evidence is available, the applicant (who could be the intended owner or their agent) submits a summary of evidence to the Department of Transport and Regional Services together with an application for approval to fit compliance plates. If all is in order, this will ultimately result in the issue of a Compliance Plate Approval. This permits plates to be fitted to an unrestricted number of vehicles of the type that has been approved.
- 1.10 During a model life spanning a number of years, new or amended ADRs may come into effect, necessitating additional testing and certification. In the case of existing models, introduction of new requirements is often delayed in recognition of the cost of making mid-model changes. For example, any new model large bus⁹ introduced from 1 July 1995 was required to meet ADR 70/00, *Exhaust Emission Control for Diesel Engined Vehicles*, while pre-existing models were only required to meet ADR 70/00 for buses built on or after 1 July 1996.

Low Volume Certification (New Vehicles)

- 1.11 The Low Volume Certification Scheme was established to make available in Australia new vehicles that would not otherwise be economically viable to test due to the high costs per vehicle associated with full volume certification for a small number of vehicles. It is restricted primarily to vehicles that are of a make and category which are not currently supplied to the Australian market in full volume, and under the scheme there is an upper limit of 100 vehicles of a particular make and model per year. To be eligible, a vehicle make and model must be listed on a Register of Specialist and Enthusiast Vehicles (see *Specialist and Enthusiast Vehicle Scheme*, below). As at 9 January 2008 the only

⁹ ADR category ME, motor omnibus over 5 tonnes GVM.

category ME (Heavy Omnibus) new vehicle model on the Register was the Krystal Hummer limousine.

Specialist and Enthusiast Vehicle Scheme

- 1.12 The Specialist and Enthusiast Vehicles Scheme was established to make available in Australia vehicles that cater for specialist and enthusiast interests and that would not otherwise be economically viable to test due to the high costs per vehicle associated with full volume certification for a small number of vehicles. The scheme applies to both new and used vehicles. In the case of buses with more than 12 seating positions, a Compliance Plate or a Used Import Plate must be fitted, and the bus must meet the ADRs applicable at the time the plate is fitted.
- 1.13 The eligibility of vehicles for importation under the scheme is assessed against established criteria¹⁰, and eligible vehicles are placed on the Register of Specialist and Enthusiast Vehicles. As at 9 January 2008, there were five models of category ME bus listed on the register, namely the Hino RU built from January 1989 to December 1993, the Mitsubishi MK117 built from January 1989 to December 1994, the Krystal Hummer H2, Limelight Hummer H2 and Presidential Hummer H2 Limousines with a Model Year¹¹ from 2003 onwards.
- 1.14 Because of the requirement that these vehicles meet current ADRs, importation must be arranged through a Registered Automotive Workshop (RAW)¹². A RAW has personnel, facilities and equipment suitable for the inspection and modification of used imported vehicles to ensure that they qualify for the fitment of used import plates, and has a quality management system meeting ISO 9001:2000 requirements. Each RAW is permitted to fit 100 Used Import Plates to motor vehicles in any one vehicle category (as defined in the ADRs), in any consecutive period of 12 months.

¹⁰ Circular 0-2-12, *Specialist and Enthusiast Vehicle Scheme (SEVS) Eligibility*, Department of Transport and Regional Services, Issue 3 April 2002.

¹¹ In the USA where the Hummer is manufactured, the Model Year traditionally starts on 1 October of the previous calendar year.

¹² *Guide to the Registered Automotive Workshop Scheme*, Department of Transport and Regional Services, July 2002.

Used Buses Built Before 1 January 1989

1.15 Buses built before 1 January 1989 may be imported into Australia without restriction. All that is needed is an import approval, available through DOTARS. However, this does not guarantee registration, as State or Territory requirements also have to be satisfied. These can vary significantly between jurisdictions, with NSW being noteworthy for its application of standards more stringent than those required for importation.

Summary of Technical Requirements for Buses Imported into NSW

1.16 As described above, the importation of buses into Australia, and hence into NSW, is governed by Commonwealth legislation, specifically the *Motor Vehicle Standards Act 1989* and *Motor Vehicle Standards Regulations 1989*. The Australian Design Rules (ADRs) set out the technical requirements for vehicle construction under this legislation.

1.17 In order for a bus to be used in Australia, it must be registered in an Australian State or Territory. In NSW, the *Road Transport (Vehicle Registration) Act 1997* provides for the registration of vehicles that have a garage address¹³ in NSW.

1.18 The ADRs set high standards for buses with regard to passenger safety, although these standards vary to some degree depending on the type of service the particular bus will be performing. For example, large buses generally are required to have lap/sash seat belts for all passengers, but those intended to carry standing passengers are not required to be fitted with seat belts for passengers, and passenger seats with low seat backs are otherwise only required to have seat belts if not protected¹⁴. All new large buses, except those satisfying criteria relating to low floor height, must meet rollover strength requirements.

1.19 Buses with 12 or more seats or with a GVM of 12 or more tonnes which were built on, or after, 1 January 1989 and imported as used buses must

¹³ The garage address of a vehicle is generally either the address of its depot or base of operations, or the address of the registered operator.

¹⁴ A protected seat is one that has screening in front of it which meets set criteria and may be in the form of a seat back or a suitably positioned vertical surface.

be fitted with an approval plate, and must meet the safety requirements applying at the time the plate is fitted. Effectively, this means that they are treated in the same manner as new buses in terms of passenger safety.

- 1.20 Buses built before 1 January 1989 may be imported without being required to meet the passenger safety requirements set out in the *Motor Vehicle Standards Act 1989*.

Processes for Licensing/Registration of Imported Used Buses for Commercial Operations in New South Wales

- 1.21 The *Road Transport (Vehicle Registration) Regulation 1998*, administered by the NSW Roads and Traffic Authority, defines a public passenger vehicle as “a registrable vehicle that is constructed principally for the conveyance of passengers and that is: (a) used for conveying passengers for hire or reward, or (b) equipped to seat more than 8 adults, including the driver, and is used for conveying passengers in the course of trade or business.”¹⁵
- 1.22 A vehicle equipped to seat more than eight adults is a public passenger vehicle if it is used to convey passengers in the course of trade or business. Thus an import application for a bus manufactured prior to 1 January 1989 will be approved without the bus being required to meet national standards. However, its importation is conditional upon such a bus meeting the registration requirements imposed by the State/Territory in which the bus is to be registered. In NSW, such a bus is required to meet the national standards in place at the date of its importation, as opposed to its date of manufacture, before it can be registered for business use. This requirement is unique to NSW.
- 1.23 In order to demonstrate that such a bus meets the currently prevailing standards, certification by a consulting engineer acceptable to the NSW RTA (an “Engineering Signatory”) is required. The Engineering Signatory must address each applicable ADR and any additional NSW

¹⁵ NSW Road Transport (Vehicle Registration) Regulation 1998, Dictionary.

RTA requirements. After any modifications that are found necessary have been carried out and the assessment completed, the Engineering Signatory produces a report containing evidence obtained by means of a combination of analysis and physical testing, which must be tendered by the owner at the time of registration. If it has an unladen mass less than 2.5 tonnes, the vehicle must then be taken to an RTA Authorised Unregistered Vehicle Inspection Scheme (AUVIS) station where it will be inspected for roadworthiness and design, its identity verified, and an inspection report (“blue slip”) issued. If the unladen mass of the bus is 2.5 tonnes or more, it must instead be taken to a Heavy Vehicle Authorised Inspection Station (HVAIS) for issue of an inspection report (“brown slip”). The inspection report and engineer’s report, together with a range of other information to verify purchase, importation approval, owner identity and insurance coverage, must then be taken to an RTA office where, on payment of the appropriate fees and taxes, registration can then be effected. In addition, for the bus is to be used to provide a public passenger service, its business owner must first be accredited by the Director-General, Ministry of Transport.

- 1.24 However, if the bus is to be registered for private use, it is required to meet the intent of the ADRs applicable at its date of manufacture¹⁶. If this requires modifications to be carried out, a report from an RTA authorised Engineering Signatory is needed.

Other Safety Matters

Accreditation of Public Passenger Service Operators

- 1.25 The NSW *Passenger Transport Act 1990* requires operators of public passenger services, other than ferry services, to be accredited by the Director-General, Ministry of Transport¹⁷. The primary purpose of this accreditation is to provide a level of assurance that the operator is capable of providing a safe and reliable service.

¹⁶ A vehicle may be considered to meet the intent of an ADR if it is fitted with equipment of a type that satisfies ADR requirements when fitted to a different make and model of vehicle, or that has been shown to meet equivalent standards.

¹⁷ Ferry services are operated under a contract between the operator and the Director General, and regulated by the NSW Maritime Authority.

- 1.26 Commercial bus operators may be accredited to conduct Regular Passenger Services (RPS) or Long Distance, Tourist and Charter Services (LDTCS), or both. Although the requirements for the two types of accreditation are quite similar, there are a small number of differences relating to matters such as passenger information requirements, signage, security, and vehicle monitoring. Accreditation is renewable every three years and requires operators:
- a. to be of good repute;
 - b. to be considered as fit and proper persons¹⁸;
 - c. to be considered competent to conduct a bus service¹⁹;
 - d. to be financially viable²⁰;
 - e. to have access to approved maintenance facilities;
 - f. to conduct a self-audit annually, an independent audit every three years and submit to MoT audits/inspections as required, and
 - g. to maintain an up-to-date register of vehicles used in the business as public passenger vehicles.

Authorisation of Drivers

- 1.27 Drivers with overseas licences must obtain an appropriate NSW licence if they hold a permanent resident visa and intend to stay in NSW. The appropriate knowledge and driving test must be passed, unless the driver holds a current overseas licence from New Zealand or from a country recognised as having comparable licensing standards to Australia, in which case the tests may not be required, although the RTA reserves the right to require the tests. By agreement between Australia's States and Territories, driving licences issued in the following countries are recognised: Austria, Belgium, Canada, Croatia, Denmark, Finland, France, Germany, Greece, Guernsey, Ireland, Isle of Man, Italy, Japan,

¹⁸ This requires that applicants agree to MoT undertaking a criminal records check and prohibits persons who have been disqualified from managing a corporation and/or have traded while insolvent.

¹⁹ The person who is to have day to day responsibility for the running of the bus operation must have satisfactorily completed an approved transport management course.

²⁰ A qualified accountant must provide evidence of the applicant's financial standing and must demonstrate that he/she/the principals will be able to sustain a business operation.

Jersey, Luxembourg, Malta, the Netherlands, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the USA.

- 1.28 All drivers of public passenger bus, motorcycle and 4-wheel drive tour vehicles must be authorised under the *Passenger Transport Act 1990*. Driver authorities are issued for a period of three years.
- 1.29 Applicants for a public passenger vehicle driver's authority must hold Australian citizenship, permanent residency or a visa permitting residency and employment in Australia. They must hold an Australian driving licence for the appropriate class of vehicle and also be regarded to be of good repute and a fit and proper person to drive a public passenger vehicle. The holder of a standard motor vehicle C Class licence is limited to driving buses up to 4.5 tonnes GVM and with a capacity of up to 12 adults. An LR (light rigid) Class licence extends the mass limit to 8 tonnes, with unlimited passenger capacity within this mass limitation. Applicants with an MR (medium rigid) Class licence can drive any two-axled vehicle (these can be up to 15 tonnes GVM) while HR (heavy rigid) Class covers all rigid and articulated buses.
- 1.30 Holder of a C Class licence must have held their licence for 12 months and must pass a knowledge test and undertake either a Competency Based Assessment (CBA) by an RTA accredited assessor, or a heavy vehicle driving test administered by the RTA, before they can be issued a LR or MR Class licence. The requirements for a HR Class licence are similar but applicants must have held their C, LR or MR Class licence for periods totalling at least two years²¹.
- 1.31 Before being authorised to drive a public passenger vehicle, an applicant must undergo specific training and assessment, and provide evidence to the Director General, Ministry of Transport that this training has been successfully completed. The training syllabus (which is delivered entirely in English) and assessment methodology have been prepared by a private training organisation, *Into Training Australia*, and a

²¹ These requirements are applicable throughout Australia.

list of authorised Driver Authority Trainers is available from the *Bus & Coach Association (NSW)*. The training syllabus deals with the following topics:

- a. Legislation & Driver Authority;
- b. Customer Service;
- c. Vehicle Operations;
- d. Managing Breakdowns and Emergencies, and
- e. Driver Welfare and Safety.

1.32 Applicants for a public passenger vehicle driver's authority are required to provide a Health Assessment form completed by a medical practitioner. The health assessment covers conditions that may impact on the ability of the applicant to drive, addressing such subjects as alcohol dependence, hypotension, diabetes and epilepsy as well as levels of physical disability. Guidelines which run to over 100 pages of text (excluding appendices) are provided to medical practitioners²², and apply differing assessment criteria for private and commercial drivers. A medical questionnaire requires completion by both the applicant and the medical practitioner, and the medical practitioner must complete a medical assessment certificate. Re-certification is generally required every three years, but annually for drivers over the age of 60.

Summary

1.33 This synopsis of the prevailing rules and regulations in relation to the importation and registration of foreign-sourced buses identifies a relatively complex matrix of requirements with emphasis on State-based conditions after the bus has been landed in Australia. Significantly, the licensing and registration requirements in NSW are stringent but are not fail-safe.

1.34 Importantly, however, compliance with NSW requirements for foreign-sourced buses which are going to be introduced into service as public

²² Assessing Fitness to Drive, for Commercial and Private Vehicle Operators, Austroads 2003.

passenger vehicles is only half the safety concern at issue in this investigation, since it is inconsequential, and probably even more dangerous, to have compliant buses on NSW roads if they are being driven by inadequately trained, but licensed, drivers who lack sufficient Australian driving experience, knowledge of the road rules and literacy skills to drive the bus in a consistently safe manner.

- 1.35 The combination of safety limitations associated with the operation of foreign-sourced buses as public passenger services by drivers who lack a sufficiency of knowledge and driving skills, is analysed in Part 2 which follows.

PART 2 ANALYSIS

Adequacy and Appropriateness of the Rules Governing the Importation into NSW of Buses Sourced from Overseas

Status of Community/Courtesy Transport Services

2.1 OTSI's investigatory functions are concerned with improving the safety of public transport passenger services, although it does investigate accidents and incidents involving freight trains because of their potential to affect the safety of rail passengers. A public transport passenger service is defined under the *NSW Passenger Transport Act 1990* as:

“the carriage of passengers for a fare or other consideration:
 (a) by motor vehicle (other than a light rail vehicle) along a road or road related area, or along the whole or part of a transitway route, or
 (b) by vessel within any New South Wales waterway.”

2.2 A significant difficulty with this definition revolves around the concept of “fare or other consideration”. For example, in its May 2002 Report, *Review of the Regulatory Framework for Community and Courtesy Transport Services in NSW*, Transport NSW (the NSW Department of Transport) stated “if community and courtesy transport services carry passengers ‘for a fare or other consideration’ (which includes consideration by way of a donation), such services could be considered to be covered by the Act and subject to regulation under the Act”, and “As the PTA²³ does not clearly define community and courtesy transport services, the extent to which regulatory requirements are intended to be applied to such services is not clear”, and furthermore, “To date, Transport NSW has had no involvement in the regulation, provision or funding of courtesy transport services, even though in some cases they might meet the definition of a ‘public passenger service.’.” In order to provide a consistent approach to the matter, the Ministry of Transport

²³ *Passenger Transport Act 1990*.

takes the view that a service that is available to members of the public independently of any affiliation with a club or society providing the transport service, is a public passenger service, i.e., if the service is only being provided to members of a club or society and is not available to the public, it is not deemed a public passenger service and its operator does not need to be accredited to provide the service.

- 2.3 Accordingly, it would seem that, at present, an organisation such as a social club which provides courtesy buses for its members, does not require accreditation as a public passenger service, even if its buses are registered in NSW for business use. OTSI is of the view that this is a realistic approach, since existing accreditation requirements appear to be sufficiently stringent for operators of the size of most such organisations, when there is no evidence of significant safety issues relating to their operation.

Anomalies in Existing Legislation

- 2.4 Post-January 1989 v Pre-January 1989 Bus Safety Standards. The requirement that buses built from 1 January 1989, and imported as used buses, meet the safety requirements applying at the time approval plates are fitted, effectively means that such buses must meet the same standards, in terms of passenger safety, as new buses. However, because buses built before 1 January 1989 are only required to meet the passenger safety standards specified in the *Motor Vehicle Standards Act 1989*, an anomaly is created. A large bus built after 1 January 1989 and imported into Australia in 2007/08 is required to be fitted throughout (subject to the exceptions already mentioned) with seat belts, and at least six seats must be equipped to accept child restraints. Rollover and anchorage strength requirements also have to be met. However, a similar bus built a month earlier would not be required to meet these standards unless it was to be registered in NSW.

Complexity of Compliance Requirements

- 2.5 Since January 1969, any new vehicle marketed for registration in Australia has been required to bear a Compliance Plate showing that it meets a set of Australian Design Rules (ADRs). As new ADRs are introduced and those already in existence are amended, it becomes increasingly difficult to compare the requirements relating to similar vehicles manufactured a few years apart. Comparing the actual safety performance of two such vehicles is even more difficult, as different vehicles exceed the ADR requirements to differing extents, and many vehicles have safety features included that were not required at their date of manufacture. Drawing a comparison between the level of safety provided by a bus built to comply with 2006 Australian requirements, and that of, for example, a bus built for the Japanese market in 1987 presents a number of difficulties. It is less complex, however, to compare the standards applying in Australia in 1987 and 2007, bearing in mind that the levels of safety that they specify are minimum levels.
- 2.6 The ADRs are technically complex and in some instances offer multiple compliance solutions. For example, compliance with ADR 46/00 for Headlamps may alternatively be demonstrated by testing to *United Nations Economic Commission for Europe (UNECE) Regulation No 1*. Furthermore, some vehicle systems, such as occupant restraints, are covered by multiple ADRs, with different applicable rules depending on the vehicle category and the date on which the vehicle was built. For these reasons, the following comparisons relate to safety systems rather than individual ADRs.
- 2.7 Occupant Restraints. In 1988, buses up to 3.5 tonnes GVM and with up to 12 seats were required to have seat belts for all seating positions. Those with over 12 seats were only required to have belts for the front row of seats. Where seat belts were required, outboard seating positions (i.e., seats within 200mm of a side wall) were to have lap/sash (three point) belts, while inboard seats were only required to have lap belts. From July 1988, buses over 3.5 tonnes GVM required a seat belt for the driver only. Buses required to have seat belts in the rear seating

positions were also required to have child restraint anchorages for these seating positions.

- 2.8 Today, under the requirements of ADR 68/00, all buses over 3.5 tonnes GVM and seating 17 or more occupants, except route service buses, must have lap/sash seat belts with Emergency Locking Retractors (ELRs) for all forward-facing passenger seats with a Reference Height of over 1 metre²⁴, and six of these seats must have child restraint anchorages. Rearward-facing seats on these buses must have at least lap belts, and drivers' seats of all buses must have lap/sash belts with ELRs. There are also requirements covering seat strength and the protection provided by seats to occupants directly behind them. The absence of seat belts on a large bus used for regular passenger services where passengers are permitted to stand (i.e., "route service" buses), versus the mandatory presence of seat belts on a similar sized bus/coach used for long distance and tour operations, where standing passengers are not permitted, is depicted in *Photos 1* and *2*.



Photo 1: Coach Seating

²⁴ The definition of *Reference Height* may be found in ADR 68/00, but in simple terms, it is the vertical height from the floor beneath the heels of a seated occupant, to the top of the seat back.

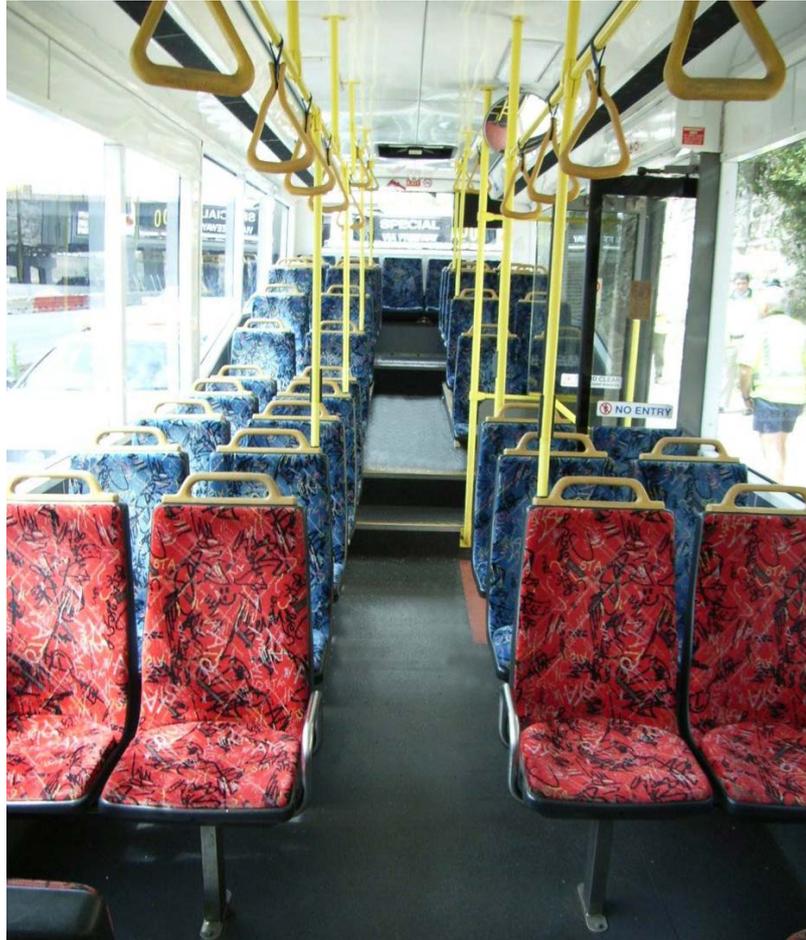


Photo 2: Route Service Bus Seating

2.9 The exemption from seatbelts for low-backed seats²⁵ has little effect on the provision of seatbelts in most buses used for long-distance and tour operations. However, until August 2007, the Toyota Coaster, originally a 21-seat bus with a GVM of 4990 kg, which is in widespread commercial use throughout NSW, was fitted with low-backed seats and provided a 3-point seat belt for the driver and lap only seat belts for three passenger seats considered to be in 'exposed' seating positions. As shown in *Photo 3*, the remaining seats had no belts fitted. Notwithstanding, this bus complied fully with extant safety requirements.

²⁵ A seat with a low back is one with a *Reference Height* not greater than 1 metre.



Photo 3: Toyota Coaster Seating

- 2.10 On 17 May 2005, a 1995 twenty-two seat model Toyota Coaster bus with 16 people on board crashed on the Hume Highway, South of Goulburn. The driver was the only occupant wearing a seat belt. Four passengers were ejected through windows in the course of the accident and two of these were killed. OTSI's view, and that of the expert safety consultant who examined the vehicle, is that these fatalities would probably not have occurred if these passengers had been wearing approved seat belts. This bus was imported into Australia as a new vehicle, with the appropriate Compliance Plate Approval, and fully complied with the safety requirements in force at the time. The concession available under ADR 68/00 for low-backed seats meant that seat belts were not required for most of the passenger seats, and were not fitted.
- 2.11 OTSI notes that the current model Toyota HiAce Commuter, a 14 seat small bus depicted in *Photo 4*, has for some years been fitted with 3-point (lap/sash) seat belts for all occupants. However, its 21 seat Coaster, depicted in *Photo 5*, was sold with only four seat belts until August 2007²⁶.

²⁶ Toyota Australia advised OTSI that since August 2007, all seats are fitted with a seat belt on this model.



Photo 4: Toyota HiAce Commuter



Photo 5: Toyota Coaster

2.12 In order to meet the demands of customers who consider it important that the vehicle/s they operate are equipped with seat belts, the “automotive aftermarket industry”²⁷ provides a service fitting lap belts to seats where none are provided by the manufacturer.

²⁷ The “automotive aftermarket industry” encompasses those businesses marketing modifications and accessories for vehicles that are already registered.

- 2.13 In 2002²⁸, the RTA noted that "... on average, 2 heavy bus occupants are killed each year. These occupants generally do not have a seat belt available to use."
- 2.14 OTSI considers that the rules, which allow new buses that can carry fare paying passengers anywhere throughout NSW, to be registered and to operate without seat belts for all passengers, take inadequate account of passenger safety. For example, while new model Toyota Coasters are now equipped with seatbelts throughout, it is still permissible for vehicles of this type and capacity that have a GVM of under 5000kg²⁹ to operate without seatbelts at speeds in excess of 100km/h in NSW. In OTSI's view, it is irrational and inappropriate that such a situation is permitted when buses that have a GVM of greater than 5000kg, and which are generally fitted with seatbelts throughout, are restricted to a maximum speed of 100km/h³⁰.
- 2.15 Since July 1992, all buses of less than 3.5 tonnes GVM, and having more than 12 seats, have been required to have seat belts for all seating positions, and all outboard seating positions are required to have lap/sash belts. Except for such buses seating more than 12 persons, the rear seats also have to be provided with child restraint anchorages³¹.
- 2.16 As a consequence of the introduction of ADR 68/00 in 1994, current model heavy buses used for other than route services are uniformly fitted with seating systems that incorporate automatically retracting lap/sash seat belts built into seats which themselves are constructed to meet stringent strength requirements. Although theoretically these buses could avoid the fitment of seat belts on most seats by using low-back seats, in practice this is not done.
- 2.17 Prior to July 1988 no seat belts were required in large buses, and there were no strength requirements in place for seats as required under ADR 68/00.

²⁸ *Heavy vehicle safety issues and countermeasures*, Roads and Traffic Authority of NSW, June 2003.

²⁹ The Toyota Coaster has a GVM of 4990kg.

³⁰ While it would be theoretically possible for these larger buses to also be registered without seatbelts for the majority of seats, this could only be achieved by fitting low-back seats rather than the usual coach seating with integrated seat belts.

³¹ No more than three seats need be provided with child restraint anchorages and seating positions with split seat backs are exempt.

- 2.18 Rollover Protection. Since July 1993, all new buses with more than 12 seating positions have been required to meet ADR 59/00, demonstrating a degree of body strength sufficient to withstand the forces normally encountered in rollover crashes. Similar requirements exist in Europe, under the *United Nations Economic Commission for Europe (UNECE) Regulation 66*, and in South Africa under the *South African Bureau of Standards (SABS) 1563:1992*. However, there was no requirement of this type of rollover protection in place anywhere in the world in 1988. Although it is feasible that some buses manufactured prior to 1989 could meet the requirements of ADR 59/00, buses built at that time were not required to do so.
- 2.19 Braking Systems. Since 1 July 1980, all buses have been subject to ADR braking system requirements that have remained largely unchanged³². Except for possible minor differences in the configuration and function of warning lights, it is likely that a bus meeting the requirements in force at any time from July 1980 onwards would also meet the requirements in force in 2007.
- 2.20 Safety Glazing. ADR 8/01, introduced for buses in July 1994, requires that all windscreens be made out of laminated safety glass. Prior to this time, windscreens could be made from safety glass that shattered into small fragments thus becoming effectively opaque when broken, and that incorporated zone-toughening of an area in front of the driver in order to retain some degree of forward visibility.
- 2.21 The main benefit of laminated glass over the previously permitted zone-toughened safety glass is the retention of good visibility for the driver after windscreen breakage, and in most cases, some contribution to the strength of the bus body.
- 2.22 Other Significant Safety Requirements. In July 1988 ADR 58/00, *Other Requirements for Omnibuses Designed for Hire and Reward*, was introduced. This rule covers a wide range of matters such as emergency exits, aisle width, handrails, access and occupant capacity. Although

³² Buses up to 4.5 tonnes GVM were subject to similar requirements from July 1979.

there was no ADR covering these matters prior to the introduction of ADR 58, they were addressed in a body of “Uniform Draft Regulations” that were used as the basis for State and Territory requirements. Thus the major effect of the introduction of ADR 58/00 was to formalise requirements that were already being implemented in NSW. However, used buses manufactured prior to 1989 and imported from overseas would not have been built to meet the NSW requirements in force either then or now, and would most likely require modification to bring them up to ADR 58/00 standards.

2.23 Requirements for emergency exits for buses are also set out in ADR 44/02, which came into effect in July 1993. Buses that comply with ADR 44/02 need not comply with the emergency exit requirements of ADR 58/00. As the requirements of ADR 44/02 are more stringent than those of ADR 58/00 in regard to such matters as the number of emergency exits and access to exits, it is unlikely that older buses built for overseas markets would meet its requirements without modification.

2.24 In summary, the following safety systems on large buses built overseas prior to 1989 could be expected to be inferior to those on new buses in 2007:

- a. occupant restraints (seat belts, seats and provision for child restraints);
- b. rollover protection;
- c. safety glazing, and
- d. general safety requirements of ADR 58/00.

Adequacy and Appropriateness of the Processes for Licensing/Registration of Imported Used Buses for Commercial Operations in New South Wales

2.25 The procedure for demonstrating that older buses have been upgraded to meet current ADR requirements in NSW involves assessment and certification by a consulting engineer acceptable to the NSW RTA (an “Engineering Signatory”). After any modifications that are found

necessary have been carried out and an assessment completed, the Engineering Signatory produces a report that must be tendered by the applicant with the application for registration. In theory, this ensures that the safety standard achieved by these buses is at least equivalent to that required of new buses. However, as already indicated, the rules and regulations that must be complied with are complex and multi-layered, and there is evidence that in practice, they have not been applied consistently by Engineering Signatories or enforced adequately by the RTA and its agents.

2.26 OTSI's investigation report into an accident involving the fatal injuring of three passengers on an imported used tour bus on the Mount Jamberoo Mountain Road on 5 September 2005 is one instance of a bus being incorrectly certified by an Engineering Signatory because he did not correctly interpret relevant ADRs. When the Engineering Signatory became aware of his error, he immediately wrote to the owners of the vehicle and requested they not make use of his report and return the report to him. However, the report was used, and the vehicle was taken to a Heavy Vehicle Authorised Inspection Station (HVAIS) to obtain an Inspection Report. The HVAIS, in full knowledge that the vehicle was intended for public passenger use, and subject to the requirement to perform a design check including ADRs, erroneously passed the vehicle as being fit for registration without passenger seatbelts. Registration of the vehicle was then transacted at the RTA on the basis of the reports provided, with the consequence that the vehicle was registered for use as a public passenger vehicle despite not meeting the required safety standards. Subsequent investigation by OTSI established that a number of other similar vehicles were also registered in the same way³³.

2.27 Since the issue of OTSI's report on the incident on Jamberoo Mountain Road, the RTA has further amplified its requirements in relation to the registration requirements for imported buses through the issue of *Compliance and Enforcement Notice 44* to its Inspectors, Signatory

³³ On subsequently becoming aware of the improper registration of these vehicles, the RTA took action to cancel the registration of these vehicles and issued specific instructions to ensure that similar vehicle types would be the subject of specific attention at their next six-monthly inspection.

Information Bulletin 1 to Engineering Signatories and *Inspection Bulletin 71* to Authorised Unregistered Vehicle Inspection Station (AUVIS) and Heavy Vehicle Authorised Inspection Station (HVAIS) examiners.

- 2.28 The RTA is aware of the variations in interpretation that sometimes occur within the Engineering Signatory scheme and has been reviewing its operation over a number of years. When the scheme was first established, the then Department of Motor Transport employed professionally qualified staff to check the reports submitted by Engineering Signatories, and took action against a number of signatories found to be acting incompetently or improperly. Over time, the RTA's capacity to exert this level of scrutiny over the activities of signatories has diminished as the number of engineers devoted to this function has been reduced.
- 2.29 The RTA has recently developed and piloted a new vehicle certification scheme (the Vehicle Compliance Certification Scheme, or VCCS) which is intended to replace the current scheme and which mandates online lodgement of reports in a pre-determined format into a database maintained by and accessible to the RTA. This new scheme is due to come into effect in February 2008. In theory, it should facilitate closer scrutiny by the RTA of the work performed by signatories and make inappropriate application of standards easier to detect. However, the extent to which this overview is likely to be effective will depend on ensuring that the certifying signatories are appropriately qualified and skilled, and that the RTA's review of their work is conducted by staff with the relevant qualifications and experience, and does not become a routine clerical function.
- 2.30 Even if the RTA is able to strengthen its engineering signatory system, the fact that NSW is alone in requiring imported buses manufactured prior to 1 January 1989 to meet the national standards applicable at the date of importation before they can be registered for business use, means that there is nothing to stop buses that do not meet NSW requirements being registered in other States/Territories and continuing

to be operated within NSW; this presents a significant dilemma for the RTA.

- 2.31 In summary, the RTA is alone in requiring imported buses built before 1 January 1989 to meet the same standards as new buses. It has had difficulty in maintaining the integrity of this requirement due to inadequacies in the certification, inspection and registration processes; however it is taking action to improve these processes.

Other Safety Matters

Driver Licensing Requirements

- 2.32 Two of OTSI's previous bus accident investigation reports have commented on issues associated with the competency or suitability of bus drivers to hold public passenger vehicle authorities. OTSI was concerned about the lack of familiarity with Australian driving conditions of the bus driver involved in the accident on Jamberoo Mountain Road on 5 September 2005 and his capacity to interpret road signs. This driver was a Chinese national who had resided in Australia for only three months before he had been issued with a NSW MR Class Licence, entitling him to drive any rigid vehicle with two axles. The following month he received his public passenger vehicle driver's authority. OTSI also expressed concerns about the retention of a public passenger vehicle driving authority by a driver who initiated a series of collisions when he lost control of his bus while descending Spit Road on 14 November 2005. The driver's public passenger vehicle driving authority was conditional upon the driver submitting to medical examination on an annual basis and this condition had not been fulfilled.

- 2.33 The holder of an overseas licence is required to satisfy the same requirements as an Australian citizen when applying for a public passenger vehicle authority. In particular, he/she must be the holder of the appropriate Class of Australian Driver Licence. Applicants must first obtain an Australian licence in the appropriate category, and unless they are from a country considered to have requirements equivalent to those

of Australia, they must pass knowledge and driving tests appropriate to the licence category. Significantly, the knowledge test can be taken in a foreign language.

- 2.34 The driver involved in the accident on Jamberoo Mountain Road on 5 September 2005 had produced evidence to the RTA that he held an overseas licence equivalent to an Australian MR licence. He then had to pass driving and knowledge tests appropriate for this licence category, including a range of general knowledge questions common to all licence categories. The knowledge test is available in a number of languages or with the assistance of an interpreter, and requires an applicant to comprehend the meaning of a range of English language road signs.
- 2.35 When OTSI sought to interview the bus driver involved in the accident on Jamberoo Mountain Road, it was advised by his employer that his English was insufficient to allow him to understand the questions that might be put to him. OTSI therefore had reservations about the driver's ability to have comprehended the warning signs that were apparent along Jamberoo Mountain Road and sought to pursue this line of inquiry with the benefit of an interpreter. However, the driver refused to submit to an interview³⁴. OTSI considers that NSW passengers have a right to expect that the driver of any public passenger bus on which they travel can comprehend a wide variety of road signs and emergency warning signs, both written and representative. It notes that with the increasing use of variable electronic road-side signage and radio broadcasts inside tunnel systems in NSW, a wider range of messages are being transmitted; these messages cannot be 'learned'; rather, they must be comprehended. Accordingly, OTSI has considerable reservations about the appropriateness of allowing persons who have not undertaken and passed the driving knowledge test in English, to be issued with a public passenger vehicle authority.

³⁴ OTSI was advised that the driver was too distressed to be interviewed, but considers that, despite the protections against self-incrimination available to him, the driver's reluctance may also have been influenced by serious charges laid against him by the NSW Police as a result of the accident.

Health Assessments

- 2.36 OTSI's investigation report into the bus accident on Spit Road in November 2005 described measures that were being taken by the MoT to reinforce the health requirements expected of the holders of public passenger vehicle authorities. Since this report was published, OTSI inquired into another incident in which the driver of a bus was involved in an accident after having collapsed at the wheel. OTSI notes that bus operators do not have the responsibility for ensuring that their drivers submit to medical testing on an ongoing basis, because this requirement is a condition linked to the holding of a public passenger vehicle authority which is administered by the MoT.
- 2.37 While OTSI appreciates that there is greater employment mobility within the heavy road vehicle industry, it supports the policy that the issue and retention of a public passenger authority, and its equivalent in the rail and ferry industries, should be conditional upon continuing satisfactory medical assessment. Until recently, there was no mechanism that might have alerted an employer in the event that a driver was given some form of qualified clearance on their medical assessment. Additionally, the MoT has no visibility of who employs a particular driver and therefore is not in a position to advise an employer in the event of the withdrawal of a driver's authority, or the attachment of new conditions to it. However, employers are obliged under the MoT's Safety Management System guidelines to access regularly the MOT's database which lists all public passenger vehicle authority numbers and now includes a field which indicates whether there is any form of condition attached to a specific authority number. If a particular authority number does not appear in the database, it means that that particular authority has been withdrawn. In the event that there is an indication that there is a condition attached to an authority, an employer may make specific enquiries of their employee or contact the MoT to establish the reason why such a condition has been attached.
- 2.38 OTSI is aware of a process being considered by a major bus operator whereby it would take responsibility for ensuring that its drivers submit to

medical examinations, and for the subsequent provision of the related documentation to the MoT. The operator wishes to pursue such an approach because it believes that it is exposed when it is reliant on a system over which it has no control and little visibility. While the conditions under which any such medicals would be conducted would have to be the subject of some form of recognition or accreditation, OTSI believes the proposal is worthy of consideration.

- 2.39 OTSI notes that the health assessment regime is dependent on medical practitioners properly understanding what are complex and extensive guidelines³⁵, and on those being assessed providing honest responses to a series of questions on a wide range of matters such as chest pain, dizziness and alcohol consumption. OTSI also appreciates that the MoT is precluded, under privacy conditions, from having access to the related medical records and has to make its decision on the basis of an overall assessment result which may be expressed as a simple statement of medical opinion as to whether the applicant meets the licensing criteria set out in the guidelines, a document of some 130 pages. The temptation for busy medical practitioners to 'scan' rather than read the guidelines and for drivers to withhold information that might otherwise adversely affect their employment is likely to be considerable. These realities will require the MoT to continue to exercise close oversight over its health assessment regime.

Conclusion

- 2.40 In summary, even though NSW has requirements in place for the registration of buses that are the most stringent of any of the States and Territories, this systemic investigation has revealed a number of areas of safety concern in relation to the provision of public transport passenger services which utilise particular foreign-sourced buses. Related matters concerning the licensing of bus drivers and the issuing of public passenger vehicle authorities have emerged during the course of the investigation and confirm shortcomings identified in previous OTSI bus

³⁵ *Assessing fitness to drive, guidelines and standards for health professionals in Australia*, Austroads, 2003.

accident investigations. The key findings and recommended remedial safety actions are described in the sections which follow.

PART 3 FINDINGS

3.1 In relation to those matters prescribed by the Terms of Reference as the principal lines of inquiry, OTSI finds as follows:

a. Rules Governing the Importation into NSW of Buses Sourced from Overseas

- i. The importation of buses into Australia is governed nationally by the *Motor Vehicle Standards Act 1989* and these requirements apply irrespective of the State through which the bus is imported.
- ii. Buses with 12 or more seats or with a Gross Vehicle Mass (GMV) of 12 or more tonnes which were built on, or after, 1 January 1989 and imported as used buses must be fitted with an approval plate, and must meet the safety requirements applying at the time the plate is fitted. Effectively, this means that such buses must meet the same safety requirements as a new bus.
- iii. Buses built before 1 January 1989 may be imported without being required to meet the passenger safety requirements set out in the *Motor Vehicle Standards Act 1989*. The effect of this concession is that a bus built in December 1988 or earlier, can be imported in 2008 provided it meets the safety requirements that were in force in Australia at the date of its manufacture, whereas a bus built in January 1989 or later must meet the safety requirements in force at the time its approval plate is fitted. However, import approval imposes the condition that such buses meet the registration requirements imposed by the State/Territory in which the bus is to be registered. This means that a bus imported on the basis of this concession cannot be registered in NSW, as NSW alone requires such buses to meet the requirements applying at their date of importation. OTSI notes that the significance of this anomalous situation is diminishing with time, as there is a small and decreasing demand in the marketplace for buses of such an age that they are eligible for importation under this concession.

- iv. The safety standards buses are required to meet upon importation are also determined by the types of services which the buses will be providing. Buses intended for regular passenger services on which there may be both standing and seated passengers, are not required to be fitted with seat belts for other than drivers. Buses intended for long distance charter and other operations where standing passengers are not carried, must generally be fitted with seatbelts throughout. An exception to this requirement applies in the case of passenger seats with low seat backs³⁶, which are only required to have seat belts if not protected³⁷. All new large buses except those satisfying criteria relating to low floor height³⁸, must also meet rollover strength requirements.
- v. The provision for protected seats with low backs to be exempt from the requirement to be fitted with seat belts has permitted importation of new buses that are commonly used for highway operations, where the majority of passengers are not provided with seat belts. That this should be possible in a country long recognised internationally for leadership in vehicle occupant protection is regrettable, and OTSI is aware of at least one incident in which passenger deaths could most likely have been prevented by the provision and wearing of seatbelts in such a vehicle³⁹. When OTSI became aware of this anomaly, the focus of the investigation was broadened to consider this aspect of new buses as well as issues surrounding the importation and registration of used buses.

³⁶ A seat with a low back is one with a *Reference Height* not greater than 1 metre. The definition of *Reference Height* may be found in ADR 68/00, but in simple terms, it is the vertical height from the floor beneath the heels of a seated occupant, to the top of the seat back.

³⁷ A protected seat is one that has screening in front of it which meets set criteria, and which may be in the form of a seat back or a suitably positioned vertical surface.

³⁸ A bus with low floor height is one with at least 75% of the upper surface of the floor between its axles not more than 550 mm from the ground.

³⁹ This incident occurred on the Hume Highway near Goulburn in May 2005, and resulted in the death of two unrestrained occupants who were ejected when a vehicle overturned at speed, when all occupants who remained in the vehicle survived.

b. Processes for Licensing/Registration of Imported Used Buses for Commercial Operations in New South Wales

- i. NSW requires that a bus imported from overseas must meet the national standards (ADRs) applicable at the date of its importation if it is to be used as a public passenger vehicle⁴⁰.
- ii. The procedure for demonstrating that an older bus has been upgraded to meet current ADR requirements involves assessment and certification of the bus by a consulting engineer acceptable to the NSW RTA (an “Engineering Signatory”). After any modifications that are found necessary have been carried out and assessment completed, the Engineering Signatory produces a report that must be tendered by the applicant at the time of registration.

c. Appropriateness and Adequacy of the Rules and Processes Governing Importation and Commercial Registration in NSW of Buses from Overseas

- i. NSW is alone in requiring that all buses imported from overseas, irrespective of their date of manufacture, must meet the national standards applicable as at the date of importation if they are to be licensed within NSW as public passenger vehicles. By way of example, a large bus built overseas in 1988 and imported into Australia in 2008 would have to be fitted with seatbelts throughout (subject to the exceptions already mentioned); seats and their anchorages would be required to meet stringent strength requirements; at least six seats would have to be equipped to accept child restraints⁴¹, and rollover strength requirements would have to be met, before it could be licensed in NSW for long distance commercial operations. A similar bus would not be subject to these requirements in other States.
- ii. Notwithstanding the obvious merits of NSW’s position, the NSW RTA is faced with the reality that there is little to prevent

⁴⁰ *Road Transport (Vehicle Registration) Regulation 1988*, Schedule 4, Part 1, Division 2, paragraph 7(a).

⁴¹ These requirements are included in ADR 68/00.

commercial bus operators from registering their buses in another State and continuing to operate in NSW

- iii. The RTA has developed a procedure within NSW using Engineering Signatories to certify that imported buses meet current ADR requirements. In theory, this will ensure that the safety standard achieved by these buses is at least equivalent to that required of new buses. In practice, however, there is evidence that this end has not always been achieved, due in part to the fact that Engineering Signatories have not applied the standards consistently, and also because the RTA's registration procedures have not detected all instances where the vehicles have not been brought up to the required standard.

d. Other Safety Matters

- i. Holders of overseas licences must satisfy the same requirements as an Australian citizen when applying for a public passenger vehicle driver's authority. They must first obtain an Australian licence in the appropriate category, and unless they are from a country considered to have requirements equivalent to those of Australia, they must pass knowledge and driving tests appropriate to the licence category. Significantly, however, the knowledge test can be taken in a foreign language. This can lead to a situation where a driver who has very limited English language comprehension and very limited experience of driving in Australia, and who may have only a limited capacity to comprehend other than basic road signs⁴², can become the holder of a public passenger vehicle driver's authority shortly after arrival in Australia.

⁴² In this context, the term "basic ... signs" refers to those that are in common usage throughout Australia and that use simple instructions such as "STOP", together with easily understood graphical depictions of the action that is required.

PART 4 RECOMMENDATIONS

4.1 In order to address the issues raised, the following remedial safety actions are recommended for implementation by the organisations specified below:

a. NSW Roads and Traffic Authority

- i. Request a review by the Department of Transport and Regional Services of the concession that allows the importation of pre-1989 buses that do not meet current safety standards, with a view to the removal of the concession.
- ii. Review the training and information provided to Authorised Unregistered Vehicle Inspection Scheme inspectors to ensure that they are aware of the importance of thorough design checks on the vehicles they inspect.
- iii. Remove the anomaly which permitted some types of new buses in NSW that were not intended to convey standing passengers to be registered even though they were not fitted with seatbelts throughout.
- iv. Require all applicants for LR, MR and HR class driver licences to undertake and pass a road knowledge test in English.

b. Ministry of Transport

- i. Institute a requirement for all applicants for a public passenger bus driver's authority to provide evidence that they have been examined and passed the road knowledge test in English.

APPENDIX A SOURCES AND SUBMISSIONS

Sources of Information

Throughout the course of this investigation and during the compilation of this report, OTSI has drawn, and relied, on information and material provided by the following organisations:

- Commonwealth Department of Transport and Regional Services (DOTARS)
- NSW Independent Transport and Safety and Reliability Regulator (ITSRR)
- NSW Ministry of Transport (MoT)
- NSW Roads and Traffic Authority (RTA)
- Toyota Motor Corporation Australia Limited

Submissions

In keeping with the “Just Culture” principles under which OTSI investigations are conducted, the Chief Investigator may provide a draft report, on a confidential basis, to any person whom the Chief Investigator determines to be a party directly involved in the investigation, in order to provide such persons with the opportunity to make submissions to the Chief Investigator about the draft report.

A draft of this report was provided to the principals of the above-named organisations. Submissions were received from each of the organisations and those matters which the Chief Investigator determined were relevant have been incorporated in this final report. Where matters contained in submissions have not been incorporated in this report, the originator of the submission has been informed of the reasons for not doing so.