AUSTRALIAN DEPARTMENT OF TRANSPORT AND REGIONAL SERVICES
Maritme and Land Transport Division

Regulation Impact Statement

ADR 2/00
Side Door Latches and Hinges

ADR 3/02
Seats and Seat Anchorages

ADR 4/03
Seatbelts

ADR 5/04
Seatbelt Anchorages

ADR 22/00
Head Restraints

February 2006

This Regulation Impact Statement deals with door latches and hinges, seats and seatbelts, their anchorages and head restraints design rules for passenger and goods vehicles belonging to M and N vehicle categories. The design rules have been reviewed proposing alignment with the requirements of the United Nations Economic Commission for Europe (UNECE) regulations.

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Summary

In Australia, there are a number of regulated Australian Design Rules (ADRs) that have been introduced in order to reduce the cost to the community from road crashes. These ADRs set out requirements for road vehicle safety, anti-theft and emissions. They apply to new vehicles and are enforced through the Federal *Motor Vehicle Standards Act 1989* (MVSA). They are subject to review every ten years to ensure they remain relevant, cost effective, and do not become a barrier to importation of safer vehicles and vehicle components.

This Regulatory Impact Statement (RIS) reviews the following sub-group of related ADRs: 2/00 (Side Door Latches and Hinges), 3/02 (Seats and Seat Anchorages), (4/03 Seatbelts), 5/04 (Seatbelt Anchorages) and 22/00 (Head Restraints). The performance of these components plays an important part in the reduction of the cost of road crashes. They are complimentary to the main occupant protection standards ADRs 69/.., 72/.. and 73/.. as they contribute in a unique way to the overall reduction of harm.

The regulations have been in force for up to thirty years as part of a mature system. Government intervention would have originally been taken to control what was perceived as a problem that could not be addresses by the marketplace. There remains considerable doubt that the marketplace would be able to overcome the problems associated with imperfect information and negative externalities.

It would be difficult to provide the required information in a manner that would be useful to the public. These regulations address detailed technical matters that would not stand out from the more assessable overall vehicle crash performance information already available to consumers and are therefore unlikely to influence consumers.

Negative externalities can be expected because the consumer that makes the decision to purchase a product does not bear all of the costs. When a vehicle is involved in a road crash, the bulk of the costs from road trauma are borne by the community, rather than by the consumer that purchased a particular vehicle or by its manufacturer. In the absence of regulation, some consumers may wish to maximise their private benefits by trading off vehicle price against safety features. The social costs would have likely resulted in a net cost rather than a net benefit to the community.

It is assumed that the existing regulations contribute to reducing the cost to the community from road crashes which has been estimated as $15 billion per year. Directly attributing the proportion of this cost to these regulations is not possible because pre-implementation economic data is generally not available. The only practical means of determining the contribution would be to remove the regulations and observe the result.

It is worth noting that most other developed countries have adopted similar regulations.

The need for government intervention has been assessed against the criteria endorsed by the Council of Australian Governments (COAG) Principles and Guidelines for Standards Setting. 7 options were identified to address the problem, including suasion

(publicity, social pressure etc) and both voluntary (codes of practice etc) and mandatory (standards, regulations) regulatory options.

Three options were found to be feasible and so further analysed by reviewing costs and benefits:

- Option 5 - Retain the provisions of the ADRs
- Option 6 - Allow the use of alternative standards from major vehicle producing countries such as the USA, European Union members or Japan.
- Option 7 - Adopt the provisions for vehicle components as set out in United Nations Economic Commission for Europe (UNECE) regulations.

The groups affected were identified as consumers (vehicle users, accident victim families/carers), business (vehicle manufacturers/importers, component manufacturers/importers and test facilities, the private health and health insurance system, the private legal system, the employment market) and the Government (emergency services, public health and legal systems, Commonwealth transport agencies performing vehicle compliance functions and State and Territory transport agencies performing a review or oversight function).

These three options were all similar in nature in respect of the magnitude and distribution of the expected costs and benefits. The costs would be borne by the consumer and the benefits by the community.

On balance option 7 was recommended as it fully meets COAG principles. By adopting the provisions of UNECE Regulations, Australia would apply international standards that are a common and current approach to a solution to the worldwide problem of road crashes. After an initial re-adjustment period of higher certification costs, reduced costs from operating a simpler certification system would lead to long term savings. These savings would relate to both Government and business needing fewer resources to provide and process test information or to the ongoing monitoring, training and maintaining of a suite of other countries' national standards.

The complimentary nature of these ADRs with the major occupant protection standards would not be compromised under any of the feasible options, as the technical requirements remain similar between all of the options. Therefore, the effect on existing regulations would be minimal.

Options 6 and 7 may result in a small reduction in Australian compliance work where vehicles can be shown to meet the alternative standards allowed for instead. However, this is an expected outcome of international harmonisation (removing technical barriers to trade) and the overall benefit to the community should be positive. The public comment process should reveal if there are small business issues relating to this.

Harmonising these ADRs should reduce the cost of compliance to business and to assist manufacturers to tap into overseas markets. They have attracted considerable support from vehicle manufacturers/importers and are seen as a priority item.

Background

In Australia, there are a number of regulations that have been introduced in order to reduce the cost to the community from road crashes.

Since 1989, the Australian Design Rules (ADRs) have stood as national standards, setting out design rules for road vehicle safety, anti-theft and emissions. The ADRs are developed through a consultative process involving Government, industry and consumer representatives. They are enforced through the Federal Motor Vehicle Standards Act 1989 (MVSA). The MVSA applies to new vehicles.

The ADRs are national standards under the *Motor Vehicles Standards ACT 1989* Suppliers of new road vehicles to the Australian market must comply with the *Motor Vehicle Standards Act 1989* (MVSA). The MVSA is an industry specific Federal law that prescribes mandatory vehicle design rules. These rules are known as the *Australian Design Rules* (ADRs) and serve as national standards for road vehicles and components. The ADRs are enforced by a type approval system. Under the system, the government issues an approval for a make/model of vehicle. An approval is based on the examination of submitted test evidence, inspection of sample vehicles, and audits of test facilities and production facilities. The main Objects of the Act include "achieving uniform vehicle standards to apply to new vehicles when they begin to be used in transport in Australia". However, there are provisions in the Act to approve specific purpose vehicles where meeting the standards would compromise the designed purpose (such as some military vehicles). As the MVSA (through the ADRs) specifies mandatory product safety standards, it is given more force in law for overall consumer protection by the *Trade Practices Act 1974* (TPA).

Users of new vehicles that have been supplied to the Australian market must comply with a set of national "in-service" Australian Vehicle Standards Regulations (AVSRs). The AVSRs were developed by the National Road Transport Commission (NRTC) in 1999 and are administered by the States and Territories. The general principle applied is that vehicles manufactured in compliance with ADRs applicable at the time of manufacture must continue to comply with those ADRs.

As Australian Government regulations, they are subject to review every ten years. This ensures that they remain relevant, cost effective and do not become a barrier to the importation of safer vehicles and vehicle components. These objectives are shared by the New Zealand Government, which has been reviewing its vehicle safety standards in partnership with Australia under the Trans-Tasman Mutual Recognition Arrangement (TTMRA).

The *Motor Vehicle Standards Act 1989* (MVSA), the primary legislation for regulation of new vehicles in Australia, was included in the Commonwealth Legislative Review Schedule announced by the Treasurer in 1996. The MVSA was subsequently reviewed by a Task Force in 2000, its role being to "….review and report on the appropriateness of the legislation and its effectiveness and efficiency in improving vehicle safety, emissions and anti-theft standards and recommend to Government any changes that should occur" (DOTARS 2000). The review was undertaken in accordance with the Council of Australian Governments (COAG) Principles and Guidelines for National Standard Setting and Regulatory Action, and

the requirements of the Competition Principles Agreement signed by the Commonwealth and all State and Territory Governments in April 1995.

The Task Force recommendations included the following:

- That the MVSA be retained in lieu of any form of self-regulation and that it continues to operate as a type approval system in lieu of any form of self-certification.

The ADRs are made up of standards relating to safety, the environment and anti-theft. Those relating to safety can be further broken down in to active safety and passive safety. Active safety covers systems that help avoid road crashes such as brakes, lighting and tyres. Passive safety covers systems that help to minimise trauma once a road crash has occurred[1]. In a road crash, the passive safety ADRs will combine to (a) contain the occupants within the vehicle (b) minimise the effect of the occupants contacting the inside of the vehicle, (c) minimise intrusion into the occupant space and (d) minimise deceleration forces applied to the occupants.

A list of passive safety ADRs is given in Table 1 below:

Table 1: ADRs concerned with Passive Safety

ADR	**TITLE**
2/..	Side Door Latches and Hinges
3/..	Seats and Seat Anchorages
4/..	Seatbelts
5/..	Anchorages for Seatbelts & Child Restraints
8/..	Safety Glazing Material
10/..	Steering Column
11/..	Internal sun visors
14/..	Rear Vision Mirrors
21/..	Instrument Panel
22/..	Head Restraints
29/..	Side Door Strength
34/..	Child Restraint Anchorages and Child Restraint Anchor Fittings
59/..	Omnibus Rollover Strength
66/..	Seat Strength, Seat Anchorage Strength and Padding in Omnibuses
68/..	Occupant Protection in Omnibuses
69/..	Full Frontal Impact Occupant Protection
72/..	Dynamic Side Impact Occupant Protection
73/..	Offset Frontal Impact Protection

For a typical passenger vehicle:

- ADRs 2/00, 4/03, 5/04, 8/.., 34/.. act to contain the occupants within the vehicle by (i) restraining them (4/03, 5/04, 34/..) and (ii) by resisting occupant ejection where restraints have failed or are not being used (2/00, 8/..).[2] Note that where restraints are not being used, ADRs 4/03, 5/04 and 34/.. have no effect

[1] This is different to the US regulation concept of a safety feature being “passive” where it requires no action by the occupant to be activated. Such features may be part of what are called complete passive protection systems. An example is automatically fitted seatbelts.

[2] The format XX/.. corresponds to the latest version of the ADR, for example 4/03 can be written as 4/..

- ADRs 3/02, 8/.., 11/.., 14/.., 21/.., 22/00 act to minimise the effects of contact with the inside of the vehicle. ADRs 10/.., 29/.., act to minimise the intrusion into the occupant space. The main occupant protection standards ADRs 69/.., 72/.., 73/.., act to minimise the deceleration forces applied to the occupant (and also intrusion).

This Regulatory Impact Statement (RIS) reviews the following related ADRs (DOTARS 2004):

1. ADR 2/00 Side Door Latches and Hinges
2. ADR 3/02 Seats and Seat Anchorages
3. ADR 4/03 Seatbelts
4. ADR 5/04 Seatbelt Anchorages
5. ADR 22/00 Head Restraints

These ADRs are part of the passive safety sub-group. They cover the strength and operation of door latches and hinges, strength of seat mountings and energy absorption of contact surfaces, strength, location and operation of seatbelts and strength, location and type of seatbelt anchorages. They have been in force under various arrangements since as early as 1971.

ADRs 2/00, 3/02, 4/03, 5/04 and 22/00 are complimentary to the main occupant protection standards ADRs 69/.., 72/.. and 73/.. as they contribute in a unique way to the overall reduction of harm. Occupant protection countermeasures are generally multiplicative in nature, reducing injury by limiting the progression from one event to the next. If the occupant is wearing a seatbelt, the belt and its anchorage will provide some protection in the first instance, before progressing to a second event which may involve contact with the steering wheel/column, dashboard, back of a seat (for rear passengers) or deployed airbag (if fitted). A third event may involve contact with a sun visor, or other parts of the vehicle interior. Where an occupant is not wearing a seatbelt, the steering wheel/column, dashboard, back of a seat (for rear passengers) or deployed airbag may be the first line of defence, followed by parts of the vehicle interior such as the glazing or the interior of the doors. These would have to compensate for the lack of occupant restraint in order to provide a comparable level of protection. Therefore, the performance of the components relating to ADRs 2/00, 3/02, 4/03, 5/04 and 22/00 play an important part in the reduction of the cost of road crashes.

For the purposes of discussion in this RIS the ADRs reviewed have been referred to as ADRs 2, 3, 4, 5 and 22.

Statement of the Problem

The problem is that in Australia there is a cost to the community from road crashes. This includes the cost of death or injury of vehicle occupants due to the forces applied during a crash.

The regulations listed above apply variously to new passenger and commercial vehicles, with the intention of reducing this cost. In particular:

- ADR 2 Side Door Latches and Hinges specifies requirements for side door retention components, including latches, hinges, and other supporting means, to minimise the likelihood of occupants being thrown from a vehicle as a result of impact

- ADR 3 Seats and Seat Anchorages specifies requirements for 'Seats', their attachment assemblies, and their installation to minimise the possibility of the seat collapsing during impact, which would compromise the performance of the occupant protection features and lead to occupant injury.

- ADR 4 Seatbelts specifies requirements for seatbelts to: restrain vehicle occupants under impact conditions, facilitate fastening and correct adjustment, assist the driver to remain in the 'Seat' in an emergency situation and thus maintain control of the vehicle, and protect against ejection in an accident situation

- ADR 5 Seatbelt Anchorages specifies requirements for anchorages for both 'Seatbelt Assemblies' and 'Child Restraints' so that they may be adequately secured to the vehicle structure or 'Seat' and will meet comfort requirements in use.

- ADR 22 Head Restraints specifies requirements for the design of ‘Head Restraints’ so as to limit the severity of injury in the event of rear-end impacts and to ensure that the ‘Head Restraint’ cannot be adjusted too low.

The Need for Government Intervention

Type and Nature of Potential Market Failure

Government intervention would be needed when markets fail to produce economically efficient outcomes. This statement examines how the market is likely to react in response to the proposed regulatory and non-regulatory options.

The existing regulations have been in force under various arrangements for approximately thirty years and so are part of a mature system. This presents some difficulties with producing quantitative economic data in support of retaining the ADRs as there is no possibility of comparing the pre and post regulatory environments. As such only a qualitative analysis has been carried out.

Imperfect or Costly Information

With all these ADRs, one of the concerns is whether the marketplace would have access to adequate information so as be able to make informed choices in purchasing vehicles with the at least a minimum level of safety. Where information about the problem is not generally available or is not easily compared or evaluated, or is excessively expensive to obtain, consumers would not be in a position to make informed choices. In the absence of regulation, consumers would have to rely on other sources of information to make purchasing decisions that were in their best interests.

The information required in this case is the crash performance of the door latches and hinges, the seat mountings, contact surfaces and head restraints, seatbelts and their anchorages, as well as their functional features and long term reliability of the components (as affects crash performance). Collating, arranging and presenting this information in a consistent and palatable form would be a great challenge.

Even with today's more educated and safety conscious community, it remains unlikely that relevant test information would 1) be agreed upon in content by the information providers (in the absence of any mandatory requirements), 2) be able to be simplified to the extent that it could be compared and evaluated by the majority of consumers, and 3) generate sufficient consumer interest such that they would act on that information. Sub-systems such as door latches and hinges, seats, head restraints and seatbelts do not have the high profile image of the major safety features such as air bags, antilock brakes or overall crash test performance.

The market currently provides some relevant information in the form of a government/motoring organisation program, the Australian New Car Assessment Program (ANCAP 2003). However the primary focus of ANCAP is confined to the overall crash performance of vehicles and it is unlikely that it could be adapted to encompass the more detailed aspects of performance of particular components or systems. ANCAP is a joint venture of the Australian and New Zealand automobile clubs, the State Government road and transport authorities in Queensland, New South Wales, Western Australia and South Australia. Similar programs are also carried out in Japan, Korea, Europe and the USA where vehicle safety requirements are regulated by legislation. Some details of the program are covered in Box 1.

The Australian New Car Assessment Program (ANCAP)

ANCAP involves crash testing new model vehicles - under strictly controlled conditions – to compare the injury levels (and survival prospects) of occupants involved in frontal and side impacts and publish the results. There is also a separate test to assess pedestrian protection. The results of these tests are not included in the overall evaluation, but are reported separately.

ANCAP is an important consumer safety initiative, strongly supported by the automotive clubs in Australian States and Territories and New Zealand. These include: NRMA Services, RACV, RACQ, RAASA, RACWA, RACT, AANT, the State Government road and transport authorities in NSW, Victoria, Queensland, South Australia and Western Australia, the Commonwealth Department of Transport and Regional Services, the New Zealand Automobile Association and New Zealand Transport Safety Authority.

ANCAP is based on a United States program, where road safety authorities have been

crash testing cars and publishing results since 1979. The ANCAP programs are gradually starting to generate the level of consumer pressure, which in the not too distant future may force manufacturers to improve the safety of their vehicles.

Source: AAA (2003)

Box 1: The Australian New Car Assessment Program

ANCAP supplements consumer decision making towards the purchase of safer vehicles. It provides consumers with consistent information on the occupant protection level of vehicles in serious front and side crashes. The crash test specifications are different from those specified in the Australian Design Rules (ADRs). This makes the program a supplement rather than a substitute to existing arrangements. The program focuses on very specific crash tests, and does not address the full scope of design requirements ie vehicle lamps, windshield, windshield wiping, washing and defogging systems, theft protection, brakes, head restraints, steering columns, door retention, adult and child seating and restraint systems, active restraint systems or emissions. It does not offer a substitute to the ADRs and in particular does not cover the requirements of ADRs 2, 3, 4, 5 and 22.

Negative Externalities

Another concern is that consumer choice could be influenced by self interest, with not much thought for the costs that may be passed on to the broader community. Negative externalities could occur where the consumer that makes the decision to purchase a product does not bear all of the costs of the product. When a vehicle is involved in a road crash, the bulk of the costs from road trauma are borne by the community, rather than by the consumer or manufacturer of the vehicle. These costs include emergency services resources, health care, productivity losses, property damage, insurance and legal costs.

In the absence of regulation, vehicles with less than a minimum level of safety could have become available to consumers. This could then have created a demand by risk takers for very low cost vehicles with few safety features. Although some consumers may wish to maximise their private benefits through such a trade off, the social costs would have likely resulted in a net cost rather than a net benefit to the community. The effect of negative externalities is even more pronounced today, due to the high cost of road trauma. In general, the high level of community support given to accident victims by emergency services, health care and through insurance, as well as the cost associated with repairing sophisticated modern vehicles, is greater than ever.

Self-Regulation

In view of the concerns with imperfect information and negative externalities, the options for self-regulation reduce to the more structured forms such as voluntary codes of practice. With self-regulation, if a vehicle that had been purchased was believed to be below even a minimum level of safety, the main recourse by the consumer or the Government would be through the provisions of the *Trades Practices Act 1974* (TPA). Taking action under the TPA could have become a lengthy process, as in all but the most obvious cases, the complexity of motor vehicles would lead to debate on what performance level the vehicle did and should meet. This would have to include regard to the extensive and ongoing research into the interaction of all the safety features in a modern vehicle. During this process, potentially unsafe vehicles could have remained in the market.

Overall, there is sufficient uncertainty over whether the market could be relied on to provide a clear choice between safe and unsafe, or less safe, door latches and hinges, seats, head restraints and seatbelts and their anchorages. It also can not be relied upon to influence purchasing decisions that fully reflect the interests of the community, or to pursue those interests effectively using consumer protection laws.

Magnitude of Potential Market Failure

The assumption is that the existing regulations contribute to reducing the cost to the community from road crashes. This cost has been estimated as $15 billion per year (BTE 1996).

Directly attributing the proportion of this cost to the regulations is not possible because:

1. The regulations have applied for a long period of time in Australia and in other countries (up to thirty years in Australia). This has meant that pre-implementation economic data is generally not available.

2. There is no definitive evidence available of the exact contribution of the regulations towards reducing death or injury.

3. The only practical means of determining the contribution is to remove the regulations and observe the result.

In the background section above the interaction and complementary nature of the various occupant protection and structures ADRs were explained. When ADRs 69, 72 and 73 were introduced the research that was carried out by the Federal Office of Road Safety indicated significant benefits from these standards, which address full frontal, side impact and offset frontal protection respectively. However, these benefits would not be fully realised if the foundation elements addressed in ADRs 2, 3, 4 and 5 did not function properly.

An outstanding question is why is it necessary to have both crash performance standards as well as structural test standards. Generally, the crash performance standards are carried out in controlled conditions at a particular speed while the structural test standards anticipate a wider set of conditions. In particular:

- ADR 2 tests for failure of door retention components under loading conditions that tend to burst the door open while the loading pattern encountered in the corresponding side impact crash standard forces the door inwards.
- ADR 3 includes forwards and rearwards crash loading tests of the seat structure and its anchorage system while the crash standards only contemplate frontal loadings. Also, ADR 3 addresses the consequences of unrestrained occupants colliding with the back of the seat.
- ADR 4 includes durability and reliability testing of seatbelts that is not featured in the crash standards. Also, the crash standards only test the restraint systems of front seats.
- ADR 5 addresses location and geometric aspects of the anchorage system to ensure that the seatbelt adopts the optimum fit for a wide range of occupants. Also, like ADR 4, it includes rear seat seatbelt anchorage tests.

It is also worth noting that most other developed countries have implemented national or international regulations similar in technical content to the Australian regulations. A comparison to regulations in other developed countries is provided in Appendix 1: Technical Content of Existing National and International Regulations for ADRs 2, 3, 4, 5 and 22. The Appendix demonstrates that in the main the components regulated and method of regulation in the ADRs are very similar to that of other countries' regulations in these areas of motor vehicle safety. Therefore, the problem has been recognised by other countries and has been addressed in a similar way. This is discussed further in the section Working Group Consultation on page 37 below.

Although the cost of the problem is difficult to determine, the magnitude is likely to be significant.

Objective of Government Intervention

The objective of government intervention is to reduce the problem to an acceptable level and in the most efficient way possible. The particular objective for the review of existing standards is to examine whether they remain relevant and cost effective without restricting free trade. The Council of Australian Governments (COAG) has endorsed a set of Principles and Guidelines for Ministerial Councils and Standards Setting Bodies, for assessing new regulatory proposals or reviewing existing regulations. These principles are shown in Box 2.

Principles of Good Regulation

- Minimising the impact of regulation
- Minimising the impact on competition
- Predictability of outcomes
- Adopt international standards and practices
- Regulations should not restrict international trade
- Regular review of regulation
- Flexibility of standards and regulations
- Standardise the exercise of bureaucratic discretion

Source: COAG, 2004

Box 2: Principles of good regulation

There are a number of international and bilateral agreements that carry certain obligations or mutual undertakings but these are entirely consistent with the COAG principle of adopting international standards.

As a signatory to the World Trade Organisation (WTO) Agreement on Technical Barriers to Trade (TBT), Australia has a commitment to adopt international standards unless particular circumstances warrant unique standards.

The Trans-Tasman Mutual Recognition Arrangement (TTMRA) is an arrangement between the Australian and New Zealand Governments which, in part, aims to allow goods to be traded freely between Australia and New Zealand. Under the TTMRA, road vehicles are subject to a review of their respective regulatory systems towards this aim. The aim is to harmonise standards with the internationally recognised United Nations Economic Commission for Europe (UNECE) regulations, or those

national or regional standards that are agreed by the Parties. The UNECE is regarded as the international standards setting body as standards development in the UNECE are open to participation by the international community.

Australia is a signatory to the UNECE *Agreement Concerning the Adoption of Uniform Conditions of approval for Motor Vehicle Equipment and Parts of March 1958* (see Box 3). The Department of Transport and Regional Services (DOTARS) has a direct role in representing Australia's interests in the development of United Nations Economic Commission for Europe (UNECE) regulations under the 1958 Agreement (see Box 4). Being internationally accepted, these regulations have the potential to open up export markets for Australia in the future. This is why Australia has been participating prior to signing the agreement in 2000. Before this time, many of the Australian Design Rules had already been harmonised in content with the UNECE regulations.

A further UNECE agreement, which Australia has not yet signed but is considering, is the *Agreement Concerning the Establishing of Global Technical Regulations for Wheeled Vehicles Equipment and Parts of June 1998* (see Box 3). This agreement facilitates the development of United Nations (UN) Global Technical Regulations (GTRs) and involves the same working party as used under the 1958 agreement. The structure of the 1998 Agreement enables full participation of a greater number of countries in UN standards development and implementation, particularly the United States of America and Canada.

The Working Party (WP. 29) and the 1958 and 1998 Agreements

The Working Party on the Construction of Vehicles (WP.29) is a subsidiary body of the United Nations, Economic Commission for Europe, Inland Transport Committee. In March 2000, the organisation became known as the *World Forum for Harmonisation of Vehicle Regulations* to reflect the transformation from a primary focus on the performance of vehicles constructed in Europe to one addressing global issues regarding vehicle safety, environmental pollution, energy and anti-theft.

WP.29 was established in 1952 by Resolution No. 45 of the Subcommittee of Road Transport of the UNECE. The Resolution called for the establishment of a working party of experts competent in the field of technical requirements for vehicles in order to implement the general technical provisions set out in the Convention on Road Traffic adopted in Geneva in 1949. Those provisions identified vehicle characteristics as major cause of road traffic crashes, deaths and injuries.

WP.29 held its first session in 1953 attended by nine governments and five non-government organisations. Through a program of workshops, concerns began to be expressed in terms of accident prevention (active safety). A significant accomplishment was the conclusion of an Agreement signed in Rome in 1956 in the form of an exchange of letters between the Governments of the then Federal Republic of Germany, France, Italy and the Netherlands, on the subject of the adoption of uniform and harmonised requirements for headlamps emitting an asymmetrical passing beam. In March 1958, the Federal Republic of Germany proposed that an Agreement be established under the auspices of UN ECE in order to facilitate the adoption of uniform conditions of approval and recognition of approval for motor vehicle equipment and parts. Thus the Agreement was done on 20th March 1958 and it entered into force on 20 June 1959, upon the signature of several European countries.

The 1998 Global agreement entered in to force in 2000. Negotiated under the leadership of Japan, the European Community and the United States, it is administered by WP.29. It was established for those countries that are unable or not ready to adopt the 1958 agreement. It allows those countries to still engage in an effective way in the development of harmonised global technical regulations.

Source: UNECE (2000), World Forum for Harmonisation of Vehicle Regulations (WP.29) How it works, How to join it

Box 3: A historical account of the 1958 and 1998 Agreement

Motor Vehicle Standards and the United Nations Economic Commission for Europe

The UNECE was set up in 1947 as one of the regional commissions of the United Nations. It has 55 member states; however all interested UN Member states may participate in its work. UN ECE activities include policy analysis, development of conventions, regulations and standards.

Road safety and the limitation of air pollution and noise caused by motor vehicles are permanent concerns of the UNECE.

The UNECE has therefore established international technical regulations for road vehicles, and their equipment and parts, such as brakes, seatbelts, windshields and exhaust pipes.

Over 100 regulations established by the UNECE provide for equal safety requirements, and set environmental protection and energy saving criteria for governments and vehicle manufacturers in 32 countries.

Moreover, these regulations reduce manufacturing and research costs, and remove obstacles to the international trade of motor vehicles.

Source: UNECE (2003)

Box 4: Motor vehicle standards and the United Nations Economic Commission for Europe

Summary of the Objective

A summary of the objective is to reduce the cost to the Australian community of death and serious injury due to the failure of door latches and hinges, seats and seatbelts and their anchorages. This is to be done while meeting the COAG principles.

The Review and other objectives suggest that consideration should also be given to:

- Ensuring any regulation is uniform across Australia, and relates to safety, environmental quality or anti-theft issues,
- Adopting UNECE or other international standards where possible and,
- Accommodating widespread support for harmonising the current regulations with UNECE regulations.

Proposed regulation and alternatives

Government intervention can be either direct (Government will directly provide safe goods or services were the market has failed to do so) or indirect (Government will

act to create a suitable environment for the market to operate in). Indirect intervention consists of:

Non-regulatory options such as;

- Suasion (publicity, social pressure etc)
- Pure market approaches (property rights)
- Economic approaches (taxes, charges, fees or subsidies) and

Regulatory options such as;

- Voluntary regulation (codes of practice etc)
- Mandatory regulation (standards, regulations)

7 options were identified to address the problem. Both non-regulatory and regulatory options were considered.

*N*ON-REGULATORY OPTIONS

Option 1 – No requirements
Withdraw mandatory requirements (no intervention).

Option 2 – User education campaigns
Operate regular road vehicle user education campaigns to provide consumers with information on the crash performance and correct use of door latches and hinges, seats, head restraints and seatbelts and their anchorages (Suasion).

*R*EGULATORY OPTIONS

Option 3 – Voluntary code of practice
Allow road vehicle supplier associations, with government assistance, to initiate and monitor a voluntary code of practice (regulatory – voluntary).

Option 4 – Mandatory standards under TPA
Mandate standards under the *Trade Practices Act 1974* (regulatory – mandatory).

Option 5 – No change
Retain the provisions of the existing ADRs (regulatory – mandatory (business as usual)).

Option 6 – ADRs and other countries' national standards
Allow the use of alternative standards from major vehicle producing countries such as the USA, European Union members, or Japan (regulatory – mandatory).

Option 7 – UNECE requirements
Adopt and apply the provisions of international standards of the United Nations Economic Commission for Europe (UNECE) (regulatory – mandatory).

Discussing the options

Non-Regulatory Options

Option 1 – No requirements
Withdraw mandatory requirements and allow market mechanisms to deliver safer vehicles to consumers.

This option withdraws the existing mandatory standards ADRs 2, 3, 4, 5 and 22 and relies instead on the market to provide sufficient information to the consumer to make an informed choice. That choice, in turn, would have to lead to vehicle systems being produced that meet the level of safety desired by the community.

The discussion under Type and Nature of Potential Market Failure on page 9 above casts considerable doubt over whether this option would be feasible and it will not be considered further.

Option 2 – User education campaigns
Operate regular road vehicle user education campaigns to provide consumers with information on the crash performance of door latches and hinges, seats, seatbelts and their anchorages and the benefits of the correct use of seatbelts.

This option withdraws the existing mandatory standards ADRs 2, 3, 4, 5 and 22, and relies instead on the Government to provide sufficient information to the consumer so that they can make an informed choice. This is similar to the self-regulation option which was discussed in Option 1. In Option 1, it was proposed to allow market mechanisms to deliver safer vehicles to consumers. Those mechanisms may have included *private sector* education campaigns (such as NCAP). In this option however, the *Government* would intervene to ensure that the information needed was provided by some means.

The Government can influence the information environment in several ways. One way is to summarise any test information that may be received from manufacturers through the vehicle certification system. This could then be made available to consumers at time of purchase.

A difficulty with this is that information received from manufacturers, or any other source as a result of testing, is technical, complex and even if treated could not be communicated to the average road vehicle user in a form which is easily understood and applied. Moreover, its ‘commercial-in-confidence’ nature makes it unlikely that manufacturers would agree to its use by the general public as it could compromise their competitive advantage.

But perhaps the biggest problem with the arrangement would be that it presupposes that there is a mandatory test requirement, and that that information could be passed to

the Government through some sort of certification system. This would in effect require the existing system of ADR certification to continue.

This diversity of information, which some believe would be difficult to compare, may also lead to confusion in the market place. This would be particularly so if applied to multiple vehicle systems and if performance of those systems is not at least underpinned by a minimum mandatory standard. In such situations, road vehicle users would prefer to leave the decision either to the manufacturer, or to government regulation.

In the absence of government provided information, other providers of information programs would have to conduct their own tests and may then have to charge consumers for such services. It is quite likely that such providers would find it difficult to establish and sustain such a market for automotive safety information. As discussed in the section on The Need for Government Intervention on page 9 above, it is very unlikely that even if available, the information would generate consumer interest.

Therefore, this option is not considered feasible.

*R*EGULATORY OPTIONS

Option 3 – Voluntary code of practice

Allow road vehicle supplier associations, with government assistance, to initiate and monitor a voluntary code of practice.

This option withdraws the existing mandatory standards ADRs 2, 3, 4, 5 and 22, and introduces a government assisted voluntary code of practice. The code of practice would include voluntary standards and a voluntary process of demonstrating compliance to the standards.

This is similar to the self-regulation option which was discussed in the Type and Nature of Potential Market Failure on page 9 above, and which was considered not feasible. However, in the option here, the Government would assist in the development of the code of practice and the process of demonstrating compliance.

If this option was to rely purely on voluntary participation by manufacturers/importers, it would have to be accepted that there may be non-participation by some of the industry. This would not be an acceptable solution to the identified problem i.e. the cost to the community from death and serious injury due to the failure of vehicular door latches and hinges, seats and seatbelts and their anchorages. This is because the problem has public safety implications with medium risk and high impact/significance attached to it. Therefore, it is not suited to the potential of having only part of the industry applying the code of practice. This option could also include benefits for participating or punitive measures for not participating. It would then become quasi-regulation, as it would influence business to comply without being part of explicit government regulation.

This type of regulation is best suited to a cohesive industry where there can be a specific industry solution applied. It is ideal for interim responses to a problem in the short term and where there is not the need to mandate a code for the whole industry.

Quasi-regulation would not be suitable in this case because:

- A code of practice would need to establish acceptance by its members of a common set of design or performance guidelines. Existing standards relevant to the industry include ADRs, UNECE Regulations, EEC Directives, Federal Motor Vehicle Safety Standards, Japan Industrial Standards, Korean Motor Vehicle Standards, Canadian Motor Vehicle Safety Standards and others. The guidelines could range from accepting only one or two selected standards, to accepting any of the standards. With the former, it would be difficult to settle on a common set in an environment where each member has a particular commercial interest. With the latter, the administrative arrangement for demonstrating compliance may become complex. This would reflect both the differing performance and differing test requirements within the set of standards. Therefore, it would be difficult to apply a specific industry solution.

- It would not be an acceptable solution to the identified problem to allow any part of the industry to choose to forgo the benefits or absorb the punitive measures, where they still calculate it as a competitive advantage not to participate.

Where the industry is expected to monitor the performance of its members, it would need to set up an administrative arrangement that could regularly monitor to the agreed performance guidelines. As the guidelines may be technically complex, this could be costly and may result in long resolution of any complaints. In an environment where its members compete with each other in the market place and the evidence of compliance is closely guarded information, it would also be difficult to compel all members to provide this information. Alternatively, if it were decided to force members to provide such information, the industry organisation's membership base could be threatened.

Ultimately, the complexity in either the standards applicable or the means of demonstrating compliance would lead to an arrangement that offers no advantage over mandatory standards and certification. In addition, the arrangement may result in only partial compliance of the industry and long resolution of any complaints. These reasons, particularly the need for the Government to ensure full participation of the industry, rules out the application of a voluntary code or of any type of quasi-regulation.

For these reasons, this option is not considered feasible.

Option 4 – Mandatory standards under TPA

Mandate standards under the Trade Practices Act 1974 (TPA).

This option mandates standards such as ADRs 2, 3, 4, 5 and 22 under the TPA, in lieu of the *Motor Vehicle Standard Act 1989* (MVSA). Under the TPA, the manufacturer/importer would not be required to submit the vehicle to an approval

process to demonstrate compliance. The Government would rely instead on any necessary action being taken under the TPA to vehicles already supplied to the market.

This option is a step further than the quasi-regulation option which was discussed in Option 3, as the standards are being directly mandated. Also, rather than the Government relying on an industry-administered regime to enforce compliance, it would rely on action under the TPA. By mandating standards and having a compliance regime that requires no initial evidence of compliance, this becomes a self-certification option.

Self-certification options were discounted during the MVSA review. Refer to page 6. In particular, the review analysed the use of self-certification as an alternative to the current system and concluded that the costs of the proposal would outweigh the benefits (DOTARS 2000).

The Task Force which reviewed the Act noted the following:

- *This activity involves high costs. In the U.S.A. for example a budget of approximately USD 25.0 million is provided, and*

- *In the event that vehicles are found not to comply with mandatory standards, action is taken by the regulatory authorities either in courts or through mandatory recall of vehicles.*

Resolution in the courts can be a lengthy process during which potentially unsafe vehicles can remain in the market.

For these reasons, this option is not considered feasible.

Option 5 – No change

Retain the provisions of the ADRs

This option keeps the existing mandatory standards ADRs 2, 3, 4, 5 and 22 and the existing compliance regime of type approval (refer to page 6 for information on type approval).

ADRs 2, 3, 4, 5 and 22 are quasi-performance standards that include minimum strength tests and functional requirements. Generally, they would not be considered design restrictive. They are similar in content to standards in place in most of the major vehicle producing countries. This similarity reflects the acceptance of a common and current approach to a solution to the worldwide problem of death and serious injury due to the failure of door latches and hinges, seats and seatbelts and their anchorages.

Applying the COAG principles to ADRs 2, 3, 4, 5 and 22:

- *Minimising the impact of regulation* – ADRs 2, 3, 4, 5 and 22 are similar to standards in most other countries. This suggests that they are a minimum requirement. This principle would be reasonably satisfied if it was accepted that some regulation should apply.

- *Minimising the impact on competition* – ADRs 2, 3, 4, 5 and 22 are quasi-performance standards that would generally not be considered design restrictive and that would apply across Australia. This principle would be reasonably satisfied if it was accepted that some regulation should apply.

- *Predictability of outcomes* - ADRs 2, 3, 4, 5 and 22 are quasi-performance standards that specify outcomes rather than inputs, and so they would not be considered design restrictive. This principle would be reasonably satisfied.

- *Adopt international standards and practices*- ADRs 2, 3, 4, 5 and 22 are similar to standards in most other countries but are not international standards. However, they do allow for some aspects of international standards (UNECE) to be used as alternatives. This principle would be partially satisfied.

- *Regulations should not restrict international trade* - ADRs 2, 3, 4, 5 and 22 are similar to those in most other countries but do not allow for other national standards. However, they do allow for some aspects of international standards (UNECE) to be used as alternatives. This principle would only be partially satisfied.

- *Regular review of regulation* – The ADRs are generally reviewed every 10 years. This principle would be satisfied.

- *Flexibility of standards and regulations* - The ADRs are generally reviewed every 10 years and stakeholders are involved during any revisions. This principle would be satisfied.

- *Standardise the exercise of bureaucratic discretion* – This relates to MVSA mechanisms and so the MVSA review. This principle would be satisfied.

For these reasons, this option is considered feasible and will be analysed further.

Option 6 – ADRs and other countries' national standards

Allow the use of alternative standards from major vehicle producing countries such as the USA, European Union members or Japan.

This option keeps the existing mandatory standards ADRs 2, 3, 4, 5 and 22, and allows selected standards from other countries to be used as alternatives.

Applying the COAG principles to ADRs 2, 3, 4, 5 and 22 and alternative standards:

- *Minimising the impact of regulation* – ADRs 2, 3, 4, 5 and 22 and alternative standards would be the same or similar to standards in many other countries. This suggests that they are a minimum requirement. This principle would be satisfied if it was accepted that some regulation should apply.

- *Minimising the impact on competition* – ADRs 2, 3, 4, 5 and 22 and alternative standards would include at least some quasi-performance standards that would not be considered design restrictive. These would apply across Australia.

This principle would be reasonably satisfied if it was accepted that some regulation should apply.

- *Predictability of outcomes* - ADRs 2, 3, 4, 5 and 22 and alternative standards would include at least quasi-performance standards that specify outcomes rather than inputs, and so they would not be considered design restrictive. This principle would be reasonably satisfied.

- *Adopt international standards and practices*- ADRs 2, 3, 4, 5 and 22 and alternative standards would be the same or similar to those in most other countries. However, neither the ADRs nor the majority of other national standards are international standards, especially if they were developed before the current global trend towards internationalisation. As discussed above, the ADRs do allow for some aspects of international standards (UNECE) to be used as alternatives. Because of this, the principle would be partially satisfied.

- *Regulations should not restrict international trade* - ADRs 2, 3, 4, 5 and 22 and alternative standards would be the same or similar to those in most other countries. To allow imports to Australia, alternative national standards that cover all expected sources of vehicles would have to be allowed. To achieve this there would have to be a large administrative effort in maintaining a suite of alternative standards as current within the Australian system. However, this would do little to help exports from Australia because a manufacturer would have to build the product to a particular alternative national or international standard to export to a particular market. Because of this, the principle would be partially satisfied.

- *Regular review of regulation* – The ADRs are generally reviewed every 10 years. This principle would be satisfied.

- *Flexibility of standards and regulations* - The ADRs are generally reviewed every 10 years and stakeholders are involved during any revisions. However, this may become difficult if there are a large number of alternative standards to manage. In addition, Australia would not be in a position to input to the development of alternative national standards. It would be limited to accepting or rejecting the final versions for Australian use. This principle may not be satisfied.

- *Standardise the exercise of bureaucratic discretion* – This relates to MVSA mechanisms and so the MVSA review. This principle would be satisfied.

This option is considered feasible and will be analysed further.

Option 7 – UNECE requirements

Adopt the provisions for vehicle components as set out in United Nations Economic Commission for Europe (UNECE) regulations, and including any alternative Global Technical Regulations (GTRs) where they exist.

This option withdraws the existing mandatory standard ADRs 2, 3, 4, 5 and 22 and replaces them with the content of Regulations Nos. 11, 17 (this regulation is relevant

to both ADRs 3 for seats and 22 for their incorporated head restraints), 16 and 14 of the UNECE and any alternative Global Technical Regulations (GTRs) where they exist. This Option does not include the adoption of Regulation No. 25, which applies to approval of head restraints separately. Refer to Appendix 1: Technical Content of Existing National and International Regulations on page 45 below for a comparison between the ADRs and their nearest equivalent UNECE and GTR standards (including the full UNECE/GTR title and version) as well as to page 15 for an explanation of the UNECE and GTR system of standards.

Applying the COAG principles to UNECE Regulation Nos 11, 17, 16 and 14

- *Minimising the impact of regulation* – UNECE Regulation Nos 11, 17, 16 and 14 would be the same or similar to standards in most other countries. This suggests that they are a minimum requirement. They are also international standards and so would be accepted as alternatives in many other countries. This principle would be satisfied if it was accepted that some regulation should apply.

- *Minimising the impact on competition* – UNECE Regulation Nos 11, 17, 16 and 14 are quasi-performance standards that would not be considered design restrictive. These would apply across Australia. This principle would be reasonably satisfied if it was accepted that some regulation should apply.

- *Predictability of outcomes* - UNECE Regulation Nos 11, 17, 16 and 14 are quasi-performance standards that specify outcomes rather than inputs, and so they would not be considered design restrictive. This principle would be reasonably satisfied.

- *Adopt international standards and practices*- UNECE Regulation Nos 11, 17, 16 and 14 are international standards. This principle would be satisfied.

- *Regulations should not restrict international trade* - UNECE Regulation Nos 11, 17, 16 and 14 are international standards. Therefore, they would be accepted in many countries (although there would be some countries that would not accept these standards as equivalent to their own national standards). This principle would be reasonably satisfied.

- *Regular review of regulation* – The ADRs are generally reviewed every 10 years. This principle would be satisfied.

- *Flexibility of standards and regulations* - The ADRs are generally reviewed every 10 years and stakeholders are involved during any revisions. This principle would be satisfied.

- *Standardise the exercise of bureaucratic discretion* – This relates to MVSA mechanisms and so the 2000 Review. This principle would be satisfied.

For these reasons, this option is considered feasible and will be analysed further.

IMPACT ANALYSIS

An impact analysis was carried out on the three options identified as feasible (Options 5, 6 and 7).

Groups affected by the problem

The groups affected by the problem of death and serious injury due to the failure of door latches and hinges, seats and seatbelts and their anchorages, during crashes of road vehicles, are identified below:

Consumers

Vehicle users
Accident victim families/carers

Business

The private health system
The private legal system
The employment market

Government

The public health system
The public legal system
The emergency services system

Groups affected by the options

The groups affected by the three options identified as feasible to counter the problem (of death and serious injury due to the failure of door latches and hinges, seats and seatbelts and their anchorages, during crashes of road vehicles) include the groups above and also:

Business

Vehicle manufacturers/importers
Door latches and hinges, seat and seatbelt manufacturers/importers
Door latches and hinges, seat and seatbelt test facilities

Government

Commonwealth transport agencies performing vehicle compliance functions
State and Territory transport agencies performing a review or oversight function

Impact of each option – Costs and Benefits

As part of the impact analysis the costs and benefits were considered.

As discussed earlier, attributing the proportion of road trauma, and therefore the benefit of the existing regulations, is difficult. As there are only regulatory options left in the analysis and these are similar in the technical requirements, it has been assumed that the costs and benefits would not differ significantly between them. Therefore, the costs and benefits of each option have been discussed in descriptive terms only, and stated relative to the existing regulations (Option 5). During the public comment phase, interested parties were asked to provide any data they might have had

that represented costs or benefits for any of the remaining options. No further information was provided.

Option 5 Retain the provisions of the ADRs (No change)

COSTS

Consumers

The existing cost to consumers is in any costs passed on from vehicle manufacturers/importers in complying with the existing regulations. It is likely that the majority of these would be passed on to the consumer.

Business

The existing cost to vehicle manufacturers/importers is in designing, testing, certifying and maintaining in production complying components. Note that this is a cost to meet the regulations and so is only a proportion of the overall cost of designing and producing the components. Also, this is likely to be passed on to the consumer (see above).

The existing cost to the private legal system is in the loss of increased business (as accident claims and legal action would be less where the regulations are applied).

Government

The existing cost to the Federal Government is effectively nil, as administration of the Motor Vehicle Standards Act 1989 is on a cost recovery basis. The Government recovers the costs as fees from manufacturers and importers seeking approval for vehicles. This is an administration cost only and so does not include the cost of design, testing and manufacture by the manufacturer.

The existing cost to the State and Territory transport agencies is that from performing a review or oversight function that relates to the components being regulated. This comprises the cost of initial shared inspections with the Federal Government of the vehicle type against the regulations, as well as the cost of inspection of individual vehicles for compliance at the point of registration. It excludes any follow on vehicle roadworthy issues.

BENEFITS

Consumers

The existing benefits to the community are shared by the vehicle users and accident victim families/carers in terms of better health and reduced insurance premiums.

Business

The existing benefits to the community are mostly shared by the private health system (reduced accident claims for the same participation level) and the employment market (increased productivity). There may be existing minor benefits for door latches and hinges, seat and seatbelt manufacturers/importers and test facilities (increased business).

Government

The existing benefits to the Government are shared by the public health system, the public legal system and the emergency services system (reduced use).

DISTRIBUTIONAL EFFECTS
It is likely that the existing costs to business in meeting the regulations are passed on to the consumer. The private legal system also carries a cost of lost opportunity for accident related work because the regulations are being met. The existing cost to the Federal Government in administering the regulations is passed on to the manufacturer/importer and hence on to the consumer. The existing cost to the State and Territory transport agencies would be self funded.

The existing benefits are mainly shared by the community in terms of better health, better employment market productivity and reduced insurance premiums. There are also benefits to business in terms of reduced claims in the private health system and possibly some component design/manufacture or testing work, and Government in terms of reduced load on the public health and emergency services system.

COAG
Under this option the following COAG principles would not be fully met:

- *Adopt international standards and practices*- ADRs 2, 3, 4, 5 and 22 are similar to standards in most other countries but are not international standards. However, they do allow for some aspects of international standards (UNECE) to be used as alternatives. This principle would be partially satisfied.

- *Regulations should not restrict international trade* - ADRs 2, 3, 4, 5 and 22 are similar to those in most other countries but do not allow for other national standards. However, they do allow for some aspects of international standards (UNECE) to be used as alternatives. This principle would only be partially satisfied.

Option 6 Allow the use of alternative standards from major vehicle producing countries such as the USA, European Union members or Japan (ADRs and other countries' national standards).

COSTS
Consumers
Overall, the costs to consumers would be the same as for Option 5. Note that this cost is variable and reflects the business and Federal Government costs.

Business
The cost to vehicle manufacturers/importers would be in designing, testing, certifying and maintaining in production complying components. This cost may be reduced from Option 5 if vehicles have already been designed to one of the alternative standards. This is because for any given vehicle design, an alternative standard may be designed and tested for to cover both the Australian and at least one other market. At best this cost could be reduced to nil (if the vehicle had already been designed and tested to any of the alternative standards). At worst this cost would be the same as Option 5 (if the vehicle had not already been designed and tested to any of the alternative standards, and none of them represented any other market for that vehicle).

However, a reduction in this cost may be considered a cost to door latches and hinges, seat, head restraints and seatbelt manufacturers/importers and test facilities (loss of business).

The process of certifying consists of the cost of government regulatory processing that covers the ADR or alternative standards. It is a cost that is ultimately passed on to the manufacturer/importer. This cost would probably be greater than in Option 5. Even though reduced certification evidence may be required (where a vehicle is already approved in another country to an alternative standard), the cost reduction is likely to be exceeded by greater administrative costs. This is because both the Government and business would have to maintain expertise and experience with the range of alternative standards. For example, any standard that is an alternative would necessitate tailored Government reporting mechanisms and staff training to correctly accept or reject submitted test results or to provide advice on.

In addition, there would be a cost in keeping the alternative standards up to date within the Australian compliance system. It normally takes a minimum of 3 months to review and update an ADR to ensure that the process is comprehensive. This would be required each time an alternative standard was updated in its country of origin, leading to frequent review of an ADR where it incorporated multiple alternative standards.

Finally, as Australia would have no input in to the development of other countries' national standards, it could find itself in the position of having to choose between accepting unsuitable updated requirements or rejecting the entire standard. All of this would create uncertainty for business and an increased administrative burden. It is an indication of the inefficiency of such a system that many of the major vehicle producing countries, such as in the European Union but also Japan, have signed up or are considering signing up to the internationally based United Nations (UNECE) regulatory system.

There is a related issue to managing a certification system that relies on other countries' national standards. There may be an expectation by business that approvals issued by other countries to the standards would be acceptable on face value as proof of compliance to the Australian requirements. A current example of this is certificates of compliance issued by European Union (EU) countries against European Economic Community (EEC) directives. Although the technical requirements of some directives are identical to corresponding United Nations Economic Commission for Europe (UNECE) regulations, Australia has no access to the testing and approval process and no recourse to query a test result. The ability to have access to the test process is fundamental to the integrity of the Australian type approval system, as approval is based on a sample vehicle using limited test information only, followed by rigorous audit of the entire testing process.

Given the above, although at first glance it would seem convenient to allow a suite of standards from different sources to be available to the vehicle manufacturer, there are substantial inefficiencies and therefore costs in maintaining this suite.

The cost to the private legal system would be the same as Option 5.

Government
Overall, the costs to the Federal Government would be the same as for Option 5. The cost to the State and Territory transport agencies may increase with the greater administrative costs associated with training for and maintaining of a wider range of alternative standards.

BENEFITS
Overall, the benefits would be the same as for Option 5, other than for door latches and hinges, seat, head restraints and seatbelt manufacturers/importers and test facilities (loss of business).

DISTRIBUTIONAL EFFECTS
Overall, the distributional effects would be the same as for Option 5.

COAG
Under this option the following COAG principles would not be fully met:

- *Adopt international standards and practices*- ADRs 2, 3, 4, 5 and 22 and alternative standards would be the same or similar to those in most other countries. However, neither the ADRs nor the majority of other national standards are international standards, especially if they were developed before the current global trend towards internationalisation. As discussed above, the ADRs do allow for some aspects of international standards (UNECE) to be used as alternatives. Because of this, the principle would be partially satisfied.

- *Regulations should not restrict international trade* - ADRs 2, 3, 4, 5 and 22 and alternative standards would be the same or similar to those in most other countries. To allow imports to Australia, alternative national standards that cover all expected sources of vehicles would have to be allowed. To achieve this there would have to be a large administrative effort in maintaining a suite of alternative standards as current within the Australian system. However, this would do little to help exports from Australia because a manufacturer would have to build the product to a particular alternative national or international standard to export to a particular market. Because of this, the principle would be partially satisfied.

- *Flexibility of standards and regulations* - The ADRs are generally reviewed every 10 years and stakeholders are involved during any revisions. However, this may become difficult if there are a large number of alternative standards to manage. In addition, Australia would not be in a position to input to the development of alternative national standards. It would be limited to accepting or rejecting the final versions for Australian use. This may lead to having to reject an otherwise satisfactory standard or accept an unsatisfactory one where unacceptable amendments have been made.

Option 7 Adopt the provisions for vehicle components as set out in United Nations Economic Commission for Europe (UNECE) Regulations and including any alternative Global Technical Regulations (GTRs) where they exist (UNECE requirements).

COSTS

Consumers

Overall, the costs to consumers would be the same as for Option 5. Note that this cost is variable and reflects the business and Federal Government costs.

Business

The cost to vehicle manufacturers/importers would be in designing, testing, certifying and maintaining in production complying components. This cost may be increased from Option 5 in the short term. This is because Option 7 only allows for UNECE standards, while ADRs 2, 3, 4, 5 and 22 currently allow both the unique text of the ADR, and the relevant international UNECE standard as an alternative (with a range of minor to major conditions applied. Refer to Appendix 2: Technical Content of Existing Alternative Standards, for details). Therefore, a vehicle may have been designed and tested to the unique ADR text rather than to the UNECE standard (with conditions applied). However, once the manufacturers/importers have redesigned and/or retested the components to the UNECE standard, the loss of the unique Australian text becomes irrelevant. This is because the unique ADR text would only ever have been used for supply to the Australian market anyway.

The short term cost increase would likely affect 35 to 50 per cent of certified components. This estimate was based on a snapshot of the existing Australian certification tests which show these components where certified to the unique ADR text requirements. Therefore, the cost would be limited to the manufacturers that follow this path. It is worth noting that in recent years there has been a trend away from certifying to the unique ADR text, and this is expected to continue.

Importantly, for the reasons raised in Option 6, the reduction in business and Government administrative costs would likely offset the short term increase in certification costs. In the longer term, after the industry had moved to the new requirements, this cost would disappear, while the savings in Government and business administrative costs would remain. This means that the cost for Option 7 would be less than Option 5 in the long term.

The cost of fully adopting the UNECE requirements may also include a cost to door latches and hinges, seat, head restraints and seatbelt manufacturers/importers and test facilities in no longer manufacturing and testing components to the Option 5 unique ADR text (loss of business).

The cost to the private legal system would be the same as Option 5 and Option 6.

Government

Overall, the costs to the Federal Government would be the same as for Option 5 and Option 6. The cost to the State and Territory transport agencies may decrease with the lesser administrative costs not only with the training for and maintaining of a range of standards similar to the ADRs, but with the ease of inspection of vehicles that have approvals granted under the UNECE arrangements. This is because the UNECE

system requires approved vehicle components to be clearly labelled with compliance marks.

BENEFITS

Consumers

Overall, the benefits would be the same as for Option 6

DISTRIBUTIONAL EFFECTS

Overall, the distributional effects would be similar to Option 5 and Option 6. However, any short term increase in compliance costs would tend to affect vehicles that are not being sold in to Europe, as they are less likely to have been certified to UNECE standards. This is represented by about 35 to 50 per cent of certified components.

COAG

Under this option all the COAG principles would be fully met.

Comparison of each option

A comparison of Options 5, 6 and 7 under the impact analysis is summarised in the table below.

Table 2: Comparison of Each Option

RIS Summary				
ALTERNATIVE	IMPACT ON			LIKELY BENEFIT/COMMENT
	Consumers	Business	Government	
5. Retain the ADRs	Baseline cost		Nil (cost recovered)	• Continued benefit in road trauma reduction. • Does not meet fully two COAG requirements to adopt international standards and to assist trade using other standards.
6. Allow Alternative Standards	Cost as per Option 5. Savings on reduced certification costs are likely to be absorbed or exceeded by higher costs to maintain government and business system.		Nil (cost recovered)	• Continued benefit in road trauma reduction. • Uncertainty and difficulty of frequent updating. • Does not meet fully three COAG requirements to adopt international standards to assist trade, to assist trade using other standards and to have flexibility in maintaining standards.

7. Adopt UNECE regulations	Cost less than Option 5 in the long term. Short term Increases in certification costs would likely temporarily offset savings in reduced maintenance of government and business systems. Short term costs would affect components not also sold in to Europe (approx 35-50%).	Nil (cost recovered)	• Continued benefit in road trauma reduction. • Meets all COAG requirements

Discussion

The regulatory options of retaining the provisions of the ADRs (Option 5), allowing the use of alternative standards (Option 6) or applying the provisions of United Nations Economic Commission for Europe (UNECE) regulations (Option 7) were all similar in nature. For all options, the expected costs and benefits were similar. However, as noted in the table, any reduction of certification costs for Option 6 are likely to be absorbed or even exceeded by increased costs to operate a more complicated certification system. By contrast, increases in certification costs for Option 7 would be short term with reduced costs to operate a simpler certification system leading to long term savings.

The distribution of the costs and benefits were also similar. The existing costs to business in meeting the regulations would be passed on to the consumer and the benefits would be shared by the community. In particular, vehicle users, accident victim families/carers, the private health insurance system, the employment market, the public health system, the public legal system and the emergency services system would benefit. However, the short term increases in certification costs for Option 7 would tend to affect vehicles that are not being sold in to Europe.

The main difference between the Options 5, 6 and 7 is in meeting the COAG principles.

Option 7 fully meets the principle to *Adopt international standards and practices*, as UNECE standards are recognised international standards. Option 5 and Option 6 do not meet this principle as Option 5 applies Australian national standards (ADRs 2, 3, 4 and 5) and Option 6 applies other countries' national standards.

In addition, Option 5 and Option 6 do not meet the COAG principle that *Regulations should not restrict international trad.* Option 5 applies Australian national standards only, which restricts importing and exporting of products. Option 6 applies other countries' national standards which may restrict some importing (unless all potential national standards have been adopted as alternative standards) and restricts a large percentage of exporting of products.

Finally, Option 6 does not meet the COAG principle of *Flexibility of standards and regulations,* as it may result in a complicated certification system that is difficult to

maintain as current and which adopts standards with no development input from the Australian perspective.

Therefore, Option 7 is the recommended option out of Options 5, 6 and 7. By adopting the provisions of UNECE Regulations, Australia would apply international standards that are a common and current approach to a solution to the worldwide problem of road crashes. After an initial re-adjustment period of higher certification costs, reduced costs from operating a simpler certification system would lead to long term savings. These savings would relate to both Government and business needing fewer resources to provide and process test information or to the ongoing monitoring, training and maintaining of a suite of other countries' national standards.

This option also meets the objective established earlier through the *Trans-Tasman Mutual Recognition Arrangement (TTMRA)* of adopting UNECE or other international standards where possible. It would have widespread support from within the vehicle manufacturing/importing industry and its implementation is seen as a priority item. As a contracting party to the *Agreement Concerning the Adoption of Uniform Conditions of approval for Motor Vehicle Equipment and Parts of March 1958*, Australia would have a direct role in representing its interests in the further development of these standards or of other related UNECE regulations.

Effect on Existing Regulations

General Effect on Existing Regulations

Adoption of Option 7 will have minimal effect on existing regulations. Although these ADRs are part of the overall occupant protection package and there are linkages between the elements as has been discussed above, the nature of the proposed changes will not compromise the connectivity or effectiveness of the other standards.

As there will be some changes in content, a minority of manufacturers who currently do not certify to the allowable UNECE alternative standards will have to make some adjustments to their certification arrangements. The others will realise some benefits from the adoption of the latest versions of the relevant UNECE regulations.

The States and Territories are responsible for regulating vehicles once entered into service and they are guided by a model developed by the National Transport Commission known as the Australian Vehicle Safety Standards (AVSRs). There is a high degree of national uniformity and the AVSRs generally require continuing compliance with the ADRs that applied at the date of manufacture. This means that existing vehicles will not have to be modified to comply with the revised standards.

Detailed Effect on Existing Regulations

The detailed effect on existing regulations in adopting UNECE regulations for ADRs 2, 3, 4, 5 and 22 may be looked at in terms of the net difference between the existing and proposed arrangements. The ADRs currently have unique Australian text, but also allow the UNECE regulations as alternative standards. However, there are various

conditions attached to use of these alternative standards (Refer Appendix 2: Technical Content of Existing Alternative Standards). Therefore, discussion of fully adopting the UNECE requirements is able to be limited to the removal of the unique Australian text and removal of these conditions.

The detailed effect of adopting the UNECE requirements is shown in Appendix 3: Detailed effect of replacing the existing ADR Text with the UNECE Text for ADRs 2, 3, 4 and 5 and 22. A brief discussion of the more significant of these effects is given below:

ADR 2/00

- The requirement to have door locks on each door and that they work in a certain way, would no longer be detailed. This includes operation of interior and child safety locks. There is little risk in this, as modern designs provide these features as a matter of course.

- Goods type doors that are able to access passenger compartments would have to have the same double latching feature as other passenger doors. This is simply extending the requirements to occupants that would be equally exposed to the risk.

- Side doors that are hinged at the rear of the door would only be permitted as part of a double door arrangement. However, this type of door is rarely fitted. Where it is, modern designs already provide these features as a matter of course.

ADR 3/02

- There would now be a strength test of seats, aimed at the shifting of goods or luggage during a crash. This test would apply to light passenger vehicles only. The issue of including this test has been canvassed during public comment and there was general support, with no particular objections raised.

- A static test would have no longer been possible; all tests would have had to have been dynamic. This would be a consequence of harmonisation to the UNECE standard. This change would mostly affect small volume manufacturers of vehicles such as ambulances, motorhomes and light off-road buses. This is because the cost of dynamic testing is likely to be more and this cost must be covered by a smaller number of production vehicles. During public comment, the industry proposed allowing for an equivalent static test, suited to these smaller manufacturers. As a static test (to the same loads) generally would be as severe a test as a dynamic test, this option will be included.

- The requirements would no longer apply to folding seats. The ADR does not define a folding seat, while the UNECE defines it as a seat for occasional or stationary use only. It is proposed to adopt this definition, as it indicates a very limited use type of seat. Adequate strength of these types of seats has become established in modern designs.

- The requirements would no longer apply to rear facing seats. However there is little risk in this anyway, as the current ADR test is unrepresentative of true rearward loading in a frontal crash. This is because it only considers seat load and not occupant load. In the rear facing position, occupant load would be the major part of the load, regardless of whether or not the seat belt is being worn. Despite this limitation in the test requirements, the failure of rear facing seats has not surfaced as an issue in the Australian fleet.

- All goods vehicles would have to comply with the standard, although heavier goods vehicles would not have to comply with the seat strength or energy dissipation requirements. This is simply extending some or all of the requirements to occupants that would be exposed to the same risk.

- All passenger vehicles would have to comply with the standard, although mid-sized buses would not have to comply with the seat strength or energy dissipation requirements if they have been built to allow for standing passengers. Similarly, heavy buses would not have to comply with the seat strength or energy dissipation requirements. This is simply extending some or all of the requirements to occupants that would be exposed to the same risk.

ADR 4/03 [3]

- The fitment of 4N retractors would normally only be allowed on a case-by-case basis, and then only for vehicles of certain categories that are fitted with suspension seats without built in seatbelts. There has to be a good reason why a standard Emergency Locking Retractor (ELR) can not be fitted. This contrasts with the ADR, where 4N retractors must be fitted to vehicles with suspension seats without built in seatbelts. 4N retractors have a higher response threshold (deceleration required to lock the seatbelt) to allow for the movement of suspension seats as the vehicle travels along the road. It is proposed to make fitment of 4N retractors unconditionally optional for suspension seats. Making them optional instead of mandatory, or in the case of the UNECE, discouraged, would be a compromise between the UNECE and the ADR position. The mandatory fitment of 4N retractors in Australia was an initiative in the 90's designed to encourage greater seatbelt use among drivers of heavy vehicles that were fitted with suspension seats. The 4N retractor has a higher response threshold and so it may not perform as well in a crash situation. In the past, this was balanced against the need to provide heavy vehicle operators with a retractor that is not susceptible to false locking. .However, the UNECE definition of a 4N retractor was adopted, the technical specification of which does not guarantee a performance different to an ELR. The lower end of its response performance overlaps the upper end of an ELR (a vehicle locking deceleration of 0.45g [Cl 6.2.5.3.1.1] and a strap lock deceleration of 1.5g [Cl 6.2.5.3.1.2 and 6.2.5.3.2] would meet both definitions). This has led to at least one major seatbelt manufacturer producing

[3] Note: The type of seat belt to be fitted can be found through the anchorage requirements in ADR 5/04 rather than the seat belt requirements in ADR 4/03. However, the proposed UNECE standards hold the requirements in the seat belt standard and so for clarity this arrangement is repeated here.

the same retractor, but labelling it interchangeably as ELR or 4N, depending on the final use. This suggests that mandating the 4N retractor may have made little difference. A major seat supplier in Australia has also commented that some 95% of suspension seats on heavy vehicles produced by the four Australian manufacturers, as well as all European imports, fit suspension seats with built in seatbelts. This being the case, it appears that market forces alone have acted to bring in the common use of suspension seats with built in seatbelts and so virtually bypass the need for the 4N type retractor. These forces would continue to act if 4N retractors are made optional.

- Lap/sash seatbelts would always have to be fitted to outboard 2nd row seats for light passenger vehicles and also for light to mid-size buses (unless there is a protective screen in front of the occupant). An exemption based on lack of permanent structure can not be claimed. This would be a limited issue as market forces have generally lead to these positions having permanent structure and hence able to be fitted with lap/sash seatbelts.

- Lap/sash seatbelts would have to be fitted to all centre seats for some light passenger vehicles, buses and heavy goods vehicles, front centre for light and medium goods vehicles (there are conditions attached to this) and to some mid-sized and heavy buses where there is no protective screen in front of the occupant. Some heavy goods vehicles would also require lap/sash seatbelts on the front row positions. It is well recognised that 3-point seatbelts lead to a better safety outcome than 2-point seatbelts in a crash. This would be a consequence of harmonisation to the UNECE standard.

- Automatically Lengthening and Locking Retractors (ALALR) would be prohibited for light passenger vehicles and some mid-sized buses but allowed progressively on the heavier vehicle categories. These types of retractors are suited to installation of child restraint capsules and seats. However, there are common solutions available for using lap/sash belts with non-ALALR retractors. This would be a consequence of harmonisation to the UNECE standard.

- Mid-sized and heavy buses and mid-sized and heavy goods vehicles would normally no longer be permitted to comply with the alternative standard; the US based Federal Motor Vehicle Safety Standard No. 209 Seat Belt Assemblies. However, it is proposed to continue to allow the use of these belts. Allowing their use would accommodate those manufacturers who supply US sourced vehicles. It is not likely to compromise the arguments of the rejection of Option 6 – Allowing the use of alternative standards from major vehicle producing countries. The seatbelts are discrete assemblies that are physically marked to indicate compliance. This means that there is only a limited amount of certification information to be managed.

- For rear facing positions, only lap belts would have to be fitted (the ADR generally requires that the same configuration as an equivalent forward facing position be fitted). This would be a consequence of harmonisation to the UNECE standard.

- For any position on a route service bus, there would be no requirement for a seatbelt to be fitted. Currently in the ADR, only the driver's position is required to have a seatbelt fitted, so effectively this would be the only position affected. The change would be a consequence of harmonisation to the UNECE standard. Route service buses around the world are generally excluded from seatbelt requirements. This is not so much because it would be impractical to fit them, as they could be fitted to passenger seats for optional use for those that are seated. The reason is that there is an extremely low risk of injury from a crash for an occupant of a route service bus. The ATSB (2001) reported that in 1997 bus travel was the safest mode of road transport, fatalities and hospitalisations of occupants totalling 0.6 percent of all road crashes. Of approximately 40 bus crash fatalities reported in NSW from September 2003 to August 2005, only 2 were occupants of a route service bus. According to Europa (2004), in the European Union (where the absolute numbers of crashes provide a large sample) a similar overall figure for urban bus fatalities is in the order of 0.25% of all crashes from 1999 to 2003. Henderson and Payne (1994) note that (for other than inter-urban coaches) expert opinion has always been that the accident rate among bus passengers is too low to justify the expense of fitting seatbelts. This low risk is because route service buses are relatively large vehicles travelling at restricted speeds and in limited areas. It is also why the public accepts that a percentage of passengers will have to stand for the journey, or sit on a seat where seatbelts have not been fitted. Currently, the only other ADR that applies to route service buses relating directly to occupant welfare is ADR 58/00 Requirements for Omnibuses Designed for Hire and Reward. The main purpose of this ADR is to provide for passenger access, in order to prevent injuries from falls during pick up and set down, rather than in a crash situation.

ADR 5/04

- Design and performance requirements for ISOFIX child restraint anchorages would normally apply. The issue of ISOFIX needs a coordinated effort by the Australian Standards Committee, which is responsible for the standard for child restraints and DOTARS which is responsible for the anchorage system. Until such time as the matter is resolved the only option is to exempt vehicles from having to comply with the UNECE, ISOFIX requirements.

- A strength test for anchorages, which includes the simultaneous application of seat inertia loads where a seatbelt anchorage is mounted on a seat, would now apply. The ADR does require similar tests (at higher inertia levels for heavy vehicles) but these are done as part of the seat anchorage testing instead (with simultaneous application of seatbelt loads) in ADR 3/02 Seats and Seat Anchorages.

- Mid-sized and heavy buses and medium to heavy goods vehicles would normally no longer be able to justify anchorage strength by design only. However, it is proposed to continue to allow the use of strength justification by design for these categories. This would allow a well proven method to

continue to be used. The method requires only a limited amount of certification information to be managed.

ADR 22/00

- Head restraints would have to be fitted to every outboard front seat of a mid-sized bus. This would be a consequence of harmonisation to the UNECE standard.

- There would no longer be the option of testing to the US based dynamic test. This would be a consequence of harmonisation to the UNECE standard.

- The height of head restraints would have to be a minimum of 800 mm (with conditions) instead of 700 mm. It is well recognised that (above a certain threshold) higher head restraints lead to a better safety outcome in a crash. This would be a consequence of harmonisation to the UNECE standard.

- The requirements would not apply to head restraints fitted to or incorporated in folding seats. This would be a consequence of harmonisation to the UNECE standard.

Overall, although there are differences, the technical requirements are relatively similar and so the effect on existing regulations would be minimal.

Consultation

The parties affected by the identified problem and the options were listed in the section Impact Analysis on page 24 above. From these, the most directly affected parties are the vehicle users, the vehicle manufacturers/importers and both the Commonwealth and the State and Territory transport agencies performing a review or oversight function.

Consultation with the main affected parties was carried out in two steps. The first step was to get a level of agreement on broad changes to the ADR through a working group. The group consists of users, industry, Commonwealth and State and Territory transport agencies performing vehicle compliance functions. The second step was to issue an exposure draft for public comment and collate and consider all responses to it. Both steps have now been completed.

Working Group Consultation

An Issues Paper on proposed reforms to ADRs 2, 3, 4, 5 and 22 was presented to the Vehicle Structures Working Group in 1998. This is a sub-group of the Technical Liaison Group (TLG). Meetings were then held to finalise the content of the reforms. It was in this forum that the TLG supported harmonising these ADRs with international regulations. It was also this forum where the details (eg the vehicle categories that are required to comply, the test values to be obtained and the test method to be followed) of the differences between the regulations were considered. See Appendix 2 for membership details of the TLG.

The agreed reforms aimed to reduce the cost of compliance to business and to assist manufacturers to tap into overseas markets, without compromising safety. It was proposed to do this by harmonising ADRs 2, 3, 4, 5 and 22 with the equivalent UNECE Regulations No 11, 17, 16 and 14. The agreed reforms have attracted considerable support from vehicle manufacturers/importers and are seen as a priority item.

Public Consultation

The issue of an exposure draft for public comment is the most extensive and interactive phase of reforming an ADR. Interested parties are able to respond to the proposal by submitting their comments to the department in writing or otherwise.

The exposure draft was in the fully drafted format of ADRs 2, 3 (which included the requirements for head restraints and so a new ADR 22 was not drafted), 4 and 5. This was to help stakeholders identify the impact of the proposal more precisely and so enable more informed debate on the issues.

Following the end of the public comment period, the Department collated all responses. These can be found in Appendix 7. Discussion of the relevant points has now been included and so the RIS is ready for Determination under the authority of the Minister for Transport and Regional Services under section 7 of the *Motor Vehicle Standards Act 1989*. . The draft ADRs have now been revised as detailed below:

ADR 2/XX

- The TBA (To Be Advised) implementation date has been changed to give a 24 month lead time for new model vehicles with no end date for all model vehicles. Refer page 42 for discussion.

- Replaced Annex 3 – Appendix Figure 3 with the original and correct image (no change to the requirements).

ADR 3/XX

- The TBA implementation date has been changed to give a 24 month lead time for new model vehicles with no end date for all model vehicles.

- Added Cl 5.2.2, allowing a simpler moment test and static testing for seat anchorages in lieu of dynamic testing.

- Removed the request to provide public comment about the applicability of the displacement of luggage test in Annex 9 as this has now been provided.

ADR 4/XX

- The TBA implementation date has been changed to give a 24 month lead time for new model vehicles with no end date for all model vehicles.

- Added in Cl 2.5 that the seatbelts of buses complying with ADR 68/..., (other than for the driver's seat) must comply with the seatbelt requirements of this

standard. This was because ADR 68/00 Occupant Protection in Buses would refer directly to ADR 4/XX regarding the technical requirements for seatbelts.

- Added in Cl 2.5.1 that a three-point belt under this standard is equivalent to a *'Lap-Sash Belt'* under ADR 68/….. This was because ADR 68/00 would refer directly to ADR 4/XX regarding the type of seatbelts and the defined terms are slightly different.

- Added in Cl 5.1 that Appendix A Cl 8.1.7.1 and 8.1.7.3 (compliance to UNECE 80) were not applicable to this standard. This was because the adopted UNECE standard would allow certification to an alternative UNECE standard which would not be relevant in Australia.

ADR 5/XX

- The TBA implementation date has been changed to give a 24 month lead time for new model vehicles with no end date for all model vehicles.

- Added in Cl 5.2 that allows separate testing of belt anchorages on seats and then seat anchorages on the vehicle structure, for seats where some or all of the belt anchorages are on the seat. This would give more flexibility to the manufacturer for testing of alternative seats on the same vehicle structure, but would not affect the requirements.

Effect on National Competition Policy

The 2000 Review of the Motor Vehicle Standards Act 1989 included a National Competition Policy (NCP) review of any evidence of restriction on competition. In the main it was found that the operation of the vehicle certification scheme under the Act does not impose any restrictions on competition (DOTARS 2000).

Of the three feasible options (5, 6 and 7), Option 7 would have a significant positive effect on NCP. This option proposes standards that do not impose a technical barrier to trade, with all parties given equal access to the market. Option 6 is similar, but the ability to export would be more restricted as it relies on being able to meet a select group of national standards. Option 5 is neutral, as it would maintain the current arrangements.

During the public comment process, no issues relating to NCP were raised.

Impact on Small Business

Of the three feasible options (5, 6 and 7) none would have much effect on the operation of small businesses in Australia. Options 6 and 7 may result in a small reduction in compliance work where vehicles could be shown to meet the alternative standards that would be allowed. However, this is an expected outcome of international harmonisation (removing technical barriers to trade) and the overall benefit to the community should be positive.

As with National Competition Policy above, no issues relating to small business were raised during the public comment period.

APPENDIX A

Conclusion and Recommended Option

A summary of the relative merits of all the options follows below. Option 7 is the recommended option, to apply the provisions of the United Nations Economic Commission for Europe (UNECE) Regulation Nos. 11, 17, 16 and 14.

The option of removing the existing regulations and not having any Government intervention (Option 1) was discounted. This was because there was considerable doubt over whether the market could be relied on to provide information that would always compel consumers to purchase vehicles with at least a minimum level of safety. In addition, the consequence of this purchase decision would be borne not just by the consumer but by the whole community. This option was similarly rejected under the 2000 review of the Motor Vehicle Standards Act 1989 due to its self-regulation nature.

Another option that was discounted was the non-regulatory option of the Government operating regular road vehicle user education campaigns to provide consumers with information on the crash performance of door latches and hinges, seats, head restraints, seatbelts and their anchorages. This was because the information would be costly to obtain (or difficult to obtain without having to mandate test and reporting standards, thus defeating the purpose of the arrangement) and generally of a confidential nature. It would also be complex and so would not generate consumer interest or provide a clear consumer choice.

The regulatory option of the Government assisting industry to implement a voluntary code of practice for door latches and hinges, seats, head restraints, seatbelts and their anchorages (Option 3) was discounted. This was because of the difficulty of industry agreeing to the content of the code and the risk of only partial compliance within the industry.

The regulatory option of the Government mandating standards to be enforced through the Trades Practices Act 1974 (Option 4) was also discounted during the 2000 Review of the *Motor Vehicle Standards Act 1989* as it was considered self-certification.

The regulatory options of retaining the provisions of ADRs 2, 3, 4, 5 and 22 (Option 5), allowing the use of alternative standards (Option 6) or applying the provisions of United Nations Economic Commission for Europe (UNECE) Regulation Nos. 11, 17, 16 and 14 (Option 7) were all similar in nature and all considered feasible. For all options, the expected costs and benefits were similar. However, any reduction of certification costs for Option 6 was likely to be absorbed or even exceeded by the increased costs to operate a more complicated certification system. By contrast, increases in certification costs for Option 7 would be short term with reduced costs to operate a simpler certification system leading to long term savings.

The distribution of the costs and benefits were also similar. In general terms, the costs would be borne by the consumer and the benefits by the community.

The main difference between the Options 5, 6 and 7 was in meeting the COAG principles. Option 7 fully met all the principles. Options 5 and 6 did not meet the principle to *Adopt international standards and practices.* In addition, Options 5 and 6

did not meet the COAG principle that *Regulations should not restrict international trade* and Option 6 did not meet the COAG principle of *Flexibility of standards and regulations.*

Therefore, Option 7 was the recommended option. By adopting the provisions of UNECE regulations, Australia would apply international standards that are a common and current approach to a solution to the worldwide problem of the cost to the community from road crashes. The standards would reduce the costs of compliance to both industry and Government.

This option also meets the objective established earlier through the *Trans-Tasman Mutual Recognition Arrangement (TTMRA)* of adopting UNECE or other international standards where possible. It would have widespread support from within the vehicle manufacturing/importing industry and its implementation is seen as a priority item. As a contracting party to the *Agreement Concerning the Adoption of Uniform Conditions of approval for Motor Vehicle Equipment and Parts of March 1958*, Australia would have a direct role in representing its interests in the further development of these standards or of other related UNECE regulations.

Implementation and Review

The development, implementation and review of Australian Design Rules (ADRs) is an established process. As the public comment exposure has indicated broad agreement to the proposal, the revised ADRs can now be determined under the authority of the Minister for Transport and Regional Services under section 7 of the *Motor Vehicle Standards Act 1989*. The draft text of the ADRs as provided during the public comment period must be reviewed and revised (provided there are no major changes) prior to this to ensure that any incorporated standards remain the latest version.

Previously, following public comment, further consultation would have been undertaken with the Transport Agencies Chief Executives (TACE) and the Australian Transport Council (ATC); determination would proceed if a simple majority of ATC members approved the proposal. However, at the June 2005 ATC meeting, transport Ministers endorsed a recommendation that broadly supported, non-contentious, UNECE harmonised proposals could proceed directly to determination following public consultation.

A suitable lead-time was to be negotiated for the application of the requirements. This lead-time is typically about 18 months to two years but depends on a number of factors.

The lead time serves mainly to allow industry to adjust to the new requirements. However, regulators also use this period to create new administrative arrangements including the revision of the on-line application forms for submission of test evidence to the ADRs, and staff training in the new requirements for application processing.

During the public comment process, light vehicle industry representatives and a heavy vehicle manufacturer proposed between 24 months and around 36 months (January 2009 enforcement) respectively for new models, with indefinite (no end date) and

down to 5 years respectively for all model vehicles. The argument for a longer lead time stems from current development work needed to meet ADR 80/01 Emission Control and ADR 83/00 External Noise. The argument for having no end date for all model vehicles is that the change to the standards is based on harmonisation with international standards and as such does not increase the safety of the fleet. Therefore, the transition could be managed by the natural change over of models being manufactured. The option of a 24 month lead time for new model vehicles with no end date for all model vehicles has now been discussed by the Technical Liaison Group (TLG) and generally supported. Therefore, this will be the lead time used.

After this review is completed, further development of these ADRs would be considered as part of the normal program of ADR review and revision. This program includes monitoring overseas developments and regular consultation with the Department's key stakeholders to identify implementation issues or changes in factors affecting existing ADRs.

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Appendices

Appendix 1: Technical Content of Existing National and International Regulations

Technical content of the existing regulations for door latches and hinges

Australian Design Rule (ADR) 2/00 Side Door Latches and Hinges is a mandatory standard that applies to new vehicles of category MA, MB and MC (passenger cars, vans and 4WDs), some MD (buses less than 3.5 tonnes) and all N (goods vehicles) when first supplied to the Australian market. The function of this standard is to specify requirements for side door retention components, including latches, hinges, and other supporting means, to minimise the likelihood of occupants being thrown from a vehicle as a result of impact. It is a quasi-performance based standard that requires minimum levels of strength, and resistance to inertia unlocking of the door latches and hinges for any door that provides an opening to a vehicle occupant. It includes door lock operation and child safety lock requirements. The standard has been in place since 1971 and has been enforced through a vehicle type approval scheme. It accepts some parts of United Nations Economic Commission for Europe Regulation No.11 as equivalent.

United Nations Economic Commission for Europe Regulation No.11 Door Latches and Hinges and European Union (EU) Directive E70/387/EEC Door Latches and Hinges are standards that apply to new vehicles of category M1 (passenger cars, vans and 4WDs) and N1 (goods vehicles up to 3.5 tonnes) when first supplied to the contracting parties' markets. They are similar to ADR 2/00 except they do not have requirements for door lock operation or child safety locks. There are restrictions on the fitment of doors with hinges at the rear edge of the direction of travel, unless they are part of a double door arrangement.

United Nations Economic Commission for Europe draft Global Technical Regulation Concerning Door Locks and Door Retention Components is a standard that is intended to be used on a global basis and may be applied to new vehicles of category 1-1 (mainly passenger cars, vans and 4WDs) and all category 2 (goods vehicles) when first supplied to the contracting parties' markets. It is similar to ADR 2/00 except that the requirements for door lock operation and child safety locks are less defined. There are restrictions on the fitment of doors with hinges at the rear edge of the direction of travel, unless they are part of a double door arrangement.

Federal Motor Vehicle Safety Standard No. 206 Door Locks and Door Retention Components is a mandatory standard that applies to new passenger cars, multipurpose passenger vehicles and trucks when first supplied to the US market. It is similar to ADR 2/00 except it does not allow for over-riding of child safety locking features.

Technical Standard for Construction and Device of Motor Vehicles Attachment 29-2 Technical Standard for Door Latches and Door Retention Components is a mandatory standard that applies to new smaller passenger vehicles and some heavier vehicles when first supplied to the Japanese market. It is similar to ADR 2/00 except it does not have requirements for door lock operation or child safety locks. There are restrictions on the fitment of doors with hinges at the rear edge of the direction of travel, unless they are part of a double door arrangement.

Technical content of the existing regulations for seats and seat anchorages

Australian Design Rule (ADR) 3/02 Seats and Seat Anchorages is a mandatory standard that applies to new vehicles of category LEP and LEG (Motor Tricycles), MA, MB and MC (passenger cars, vans and 4WDs), some MD (buses less than 3.5 tonnes) and NA (light goods vehicles) when first supplied to the Australian market. The function of this standard is to specify requirements for 'Seats', their attachment assemblies, and their installation to minimise the possibility of occupant injury due to forces acting on the 'Seat' as a result of vehicle impact. It is

a quasi-performance based standard that requires minimum levels of strength of seat mountings and hinges as well as energy absorption of some defined areas contactable by an occupant during an impact. The standard has been in place since 1971 and has been enforced through a vehicle type approval scheme. It accepts many parts of United Nations Economic Commission for Europe Regulation No.17 as equivalent.

United Nations Economic Commission for Europe Regulation No.17 Seats and European Union (EU) Directive 74/408/EEC Seats, their Anchorages and Head Restraints are standards that apply to new vehicles of various categories M (passenger vehicles) and various categories N (goods vehicles) when first supplied to the contracting parties' markets. They are similar to ADR 3/02 except they do not cover (Australian) child restraint anchorages, are prescriptive about limiting rough edges and have an additional test for luggage displacement.

Federal Motor Vehicle Safety Standard No. 207 Seating Systems is a mandatory standard that applies to new passenger cars, multipurpose passenger vehicles, trucks and buses when first supplied to the US market. It is similar to ADR 3/02 except it does not address energy absorption and allows a lower value of moment loading on seatback hinges.

Technical Standard for Construction and Device of Motor Vehicles Attachment 22 Technical Standard for Seats and Seat Anchorages and Attachment 23 Technical Standard for Seatback Impact Absorption are mandatory standards that apply to new passenger vehicles when first supplied to the Japanese market. Together they are similar to ADR 3/02 except they allow a lower value of moment loading on seatback hinges.

Technical content of the existing regulations for seatbelts

Australian Design Rule (ADR) 4/04 Seatbelts is a mandatory standard that applies to new vehicles of category LEP and LEG (Motor Tricycles), all M (passenger cars, vans, 4WDs and buses) and all N (goods vehicles) when first supplied to the Australian market. The function of this standard is to specify requirements for seatbelts to: restrain vehicle occupants under impact conditions, facilitate fastening and correct adjustment, assist the driver to remain in their 'Seat' in an emergency situation and thus maintain control of the vehicle, and protect against ejection in an accident situation.
It is a quasi-performance based standard that requires minimum levels of strength, has limits on elongation and energy absorption, resistance to environmental factors and fatigue and requirements for functionality. It includes a dynamic sled test. The basic standard has been in place since 1969 and has been enforced through a vehicle type approval scheme. It accepts the United Nations Economic Commission for Europe Regulation No.16 as equivalent.……
…….

United Nations Economic Commission for Europe Regulation No.16 Safety Belts and European Union (EU) Directive 77/541/ EEC Safety Belts are standards that apply to new vehicles of various categories M (passenger vehicles) and various categories N (goods vehicles) when first supplied to the contracting parties' markets. They are similar to ADR 4/04 except they are less prescriptive about belt fitment and accessibility. They also contain the requirements for the type of belt to be fitted (the equivalent can be found in ADR 5/04 Seatbelt Anchorages rather than in 4/04 Seatbelts – there are some differences in belt types).

Federal Motor Vehicle Safety Standard No. 209 Seat Belt Assemblies is a mandatory standard that applies to new passenger cars, multipurpose passenger vehicles, trucks and buses when first supplied to the US market. It is similar to ADR 4/04 except there is no dynamic strength test and it is less prescriptive about belt fitment and accessibility.

Technical Standard for Construction and Device of Motor Vehicles Article 22-3 Attach 32 Technical Standard for Seat Belt Assemblies is a mandatory standard that applies to new vehicles (other than two-wheeled vehicles) when first supplied to the Japanese market. It is similar to ADR 4/04 except it is less prescriptive about belt fitment and accessibility. There are also some differences in belt types to be fitted.

Technical content of the existing regulations for seatbelt anchorages

Australian Design Rule (ADR) 5/04 Seatbelt Anchorages is a mandatory standard that applies to new vehicles of category LEP and LEG (Motor Tricycles), all M (passenger cars, vans, 4WDs and buses) and all N (goods vehicles) when first supplied to the Australian market. The function of this standard is to specify requirements for 'Anchorages' for both 'Seatbelt Assemblies' and 'Child Restraints' so that they may be adequately secured to the vehicle structure or 'Seat' and will meet comfort requirements in use. It is a quasi-performance based standard that defines seatbelt anchorage (and therefore seatbelt) type and number and requires minimum levels of strength. It includes location requirements. The basic standard has been in place since 1969 and has been enforced through a vehicle type approval scheme. It accepts many parts of United Nations Economic Commission for Europe Regulation No.14 as equivalent.

United Nations Economic Commission for Europe Regulation No.14 Safety Belt Anchorages and European Union (EU) Directive 76/115/ EEC Safety Belt Anchorages are standards that apply to new vehicles of various categories M (passenger vehicles) and various categories N (goods vehicles) when first supplied to the contracting parties' markets. They are similar to ADR 5/04 except they apply simultaneous anchorage test loads and prescribe ISOFIX child restraint anchorages (not compatible with Australian child restraint anchorages).

Federal Motor Vehicle Safety Standard No. 210 Seat Belt Assembly Anchorages is a mandatory standard that applies to new passenger cars, multipurpose passenger vehicles, trucks and buses when first supplied to the US market. It is similar to ADR 5/04 except the type of belt to be fitted is prescribed in FMVSS 208 Occupant Crash Protection and is dependent on the type of vehicle, occupant protection systems fitted, and the type of crash test performed.

Technical Standard for Construction and Device of Motor Vehicles Article 22-3 Attach 31 Technical Standard for Seat Belt Anchorages is a mandatory standard that applies to new vehicles (other than two-wheeled vehicles) when first supplied to the Japanese market. It is similar to ADR 5/04.

Technical content of the existing regulations for head restraints

Australian Design Rule (ADR) 5/04 Seatbelt Anchorages is a mandatory standard that applies to new vehicles of category LEP and LEG (Motor Tricycles), all M (passenger cars, vans, 4WDs and buses) and all N (goods vehicles) when first supplied to the Australian market. The function of this standard is to specify requirements for the design of 'head restraints' so as to limit the severity of injury in the event of rear-end impacts and to ensure that the 'head restraint' cannot be adjusted too low. It is a quasi-performance based standard that prescribes which seating positions must have head restraints fitted, the heights and widths of the impact surfaces and overall surfaces, and the displacement limits under static testing or dynamic testing. It accepts most of United Nations Economic Commission for Europe Regulation Nos.17 (where relevant) and 25 as well as most of Federal Motor Vehicle Safety Standard 202 as equivalent.

United Nations Economic Commission for Europe Regulation No.17 Seats and European Union (EU) Directive 74/408/EEC Seats, their Anchorages and Head Restraints as well as United Nations Economic Commission for Europe Regulation No.25 Head Restraints are standards that apply to new vehicles of various categories M (passenger vehicles) and various categories N (goods vehicles) when first supplied to the contracting parties' markets. The parts of the requirements that relate to head restraints are similar to ADR 22/00 except that a dynamic test is not permitted and they require the head restraints to be higher from the seat base.

Federal Motor Vehicle Safety Standard No. 202 Head Restraints is a mandatory standard that applies to new passenger cars, multipurpose passenger vehicles, and light trucks and light buses when first supplied to the US market. It is the same as ADR 22/00.

Technical Standard for Construction and Device of Motor Vehicles Article 22-4 Technical Standard for Head Restraints is a mandatory standard that applies to new small passenger and light goods vehicles (other than two-wheeled vehicles) when first supplied to the Japanese market. It is the same as UNECE Regulation No.17 and No.25.

Appendix 2: Technical Content of Existing Alternative Standards

ADRs 2, 3, 4, 5 and 22 all allow selected parts of UNECE regulations as alternative standards. These have been extracted from the ADRs and are shown below:

ADR 2/00 Side Door Latches and Hinges standards
The technical requirements of ECE R 11/00 to 11/02 "Door Latches and Hinges" shall be deemed to be equivalent to the technical requirements of Clauses 2.2.1.1, 2.2.1.1.1, 2.2.1.1.2, 2.2.1.1.3, 2.2.1.2 (for hinged doors, except '*Goods-type Doors*') and 2.2.3 (for sliding doors) of this Rule.

Allows UNECE regulation R11 as an alternative for door strength tests other than for Goods-type Doors (as these are not separately defined in the UNECE they would hence be covered by other door tests). Door locking and optional child safety locking functionality must be met).

ADR 3/02 Seats and Seat Anchorages
The technical requirements of ECE R 17/03 or ECE R 17/04 "Seats and their Anchorages" together with, where applicable, the technical requirements of either clause 5.5.1.1 or ECE R 14/02 "Safety Belt Anchorages" and of clause 5.5.1.2 are deemed to be equivalent to the technical requirements of this rule for front-facing *'Seats'* which are not *'Folding Seats'* .
As at Det 2 of 1998

Allows UNECE regulation R17 as an alternative for seat strength and energy dissipation tests for front facing seats that are not folding seats. Loading of seat mounted seatbelt anchorages must be covered by the test in Cl 5.5.1.1or another UNECE regulation (R14). A separate strength test for the influence of child restraint loading on the seat mountings must be carried out in all cases.

ADR 4/03 Seatbelts
20.1 The technical requirements of ECE R 16/04 "Safety Belts" must be deemed to be equivalent to the technical requirements of this rule, provided that:
20.1.1 Deleted.
20.1.2 Deleted.
20.1.3 the free end requirements of clauses 6.3.2 or 19.2 of this rule are met.
20.2 The technical requirements of AS/NZS 2596:1995 Seat Belt Assemblies for Motor Vehicles are deemed to be equivalent to the technical requirements of this rule, provided that
20.2.1 non locking retractors are not used
20.2.2 the free end requirements of clauses 6.3.2 or 19.2 of this rule are met.

Allows UNECE regulation R16 or AS/NZS 2596 as an alternative for all aspects of seatbelt strength and functionality except that any free end of a seatbelt strap must be attached to the belt. This requirement is more relevant to earlier versions of the ADR that allowed manual lap belts (potentially with free ends) to be used on outboard seating positions.

ADR 5/04 Seatbelt Anchorages
The technical requirements of ECE R 14/02 - "Safety Belt Anchorages" must be deemed to be equivalent to the technical requirements for location (clauses 5.6 and 6.6) and strength (clause 5.7) of '*Anchorages'* for front-facing seating positions.

Allows UNECE regulation R14 as an alternative for all aspects of seatbelt anchorages except;

1. *It applies to front facing seats only.*
2. *The types of seatbelts to be fitted must be taken from the ADR, as R14 does not specify this (it is specified in R16 instead).*
3. *Some simplified testing of symmetrical and multiple anchorages is allowed.*
4. *Additional loads for pillar mounted anchorages must be met.*
5. *The design and performance requirements for sash guides must be met.*
6. *The seatback angle testing requirements must be met.*
7. *The general test methods must be met.*
8. *The optional requirements of strength and location may be used for vehicle categories MD3, MD4, ME, NB2 and NC. These allow strength calculations in lieu of testing.*

ADR 22/00 Head Restraints
The technical requirements of ECE R 25/01, 25/02, 25/03 or 25/04 - “Head restraints (Headrests)” and FMVSS 202-33 F.R. 15065, October 9, 1968 “Head restraints - Passenger Cars” are deemed to be equivalent to the technical requirements of this rule provided that the requirements of clauses 22.2.2, 22.2.3 and 22.2.4 are complied with.

The technical requirements of ECE R 17/03, 17/04 or 17/05 “Seats, their Anchorages and any Head Restraints” are deemed to be equivalent to the technical requirements of this rule provided that the requirements of clauses 22.2.2, 22.2.3 and 22.2.4 are complied with. For vehicles which have an ECE approval to R17, the approval must be for vehicles with *‘seats’* fitted with, or capable of being fitted with a *‘head restraint’* .

Allows UNECE regulation R17, R25 or FMVSS 202 as an alternative for all aspects of head restraints except;

1. *The height and width of the impact surfaces must meet certain minimum requirements.*
2. *Approvals to UNECE R17 must be for seats that include, or are fitted with, head restraints.*

Appendix 3: Detailed effect of replacing the existing ADR Text with the UNECE Text for ADRs 2, 3, 4 and 5 and 22.

The net differences between the requirements of the existing ADR text and those of the UNECE regulations if adopted in Australia would be:

ADR 2/00

1. The ADR has requirements for door lock operation (including allowances for child safety lock mechanisms being fitted). These requirements would no longer apply.

2. The UNECE requires certain goods type doors (with access to passenger compartments) to have two latch positions rather than one. This requirement would now apply.

3. The UNECE has design requirements limiting a particular door type where hinges are fitted at the rear edge of the direction of travel ("suicide" doors). This requirement would now apply.

ADR 3/02

1. The UNECE requires a test for resistance to intrusion from luggage displacement for MA, MB and MC vehicle categories. The issue of including this test has been canvassed during public comment and there was general support, with no particular objections raised.

2. The ADR has requirements for testing the additional load placed on the seat mountings by the top tether strap of the Australian child restraint. It is proposed to keep this test as the UNECE does not facilitate the Australian arrangement, which is well established but not compatible with the UNECE system. The requirements for child restraints is the subject of on-going discussions between the North American, European, Japanese, Australian and New Zealand officials. Until an agreement is reached on the fusion of the disparate requirements, possibly in the form of Global Technical Regulation under the 1998 Agreement, it is difficult to anticipate the content of the international regulation.

3. The ADR allows either static or dynamic testing; the UNECE allows only dynamic testing.

4. The ADR is applicable to folding seats and rear facing seats. This would no longer apply. The ADR does not define a folding seat but the UNECE defines it as a seat for occasional or stationary use only. It is proposed to adopt this position under the UNECE definition of a folding seat. It is also proposed to adopt this position for rear facing seats.

5. The UNECE applicability includes all N group vehicle categories. NB and NC would now have to comply (but not with the strength or energy dissipation requirements).

6. The UNECE requires rough edge tolerances to be met for MA, MB and MC. The ADR does not. These categories would now have to comply.

7. The UNECE applicability includes all M group vehicle categories. MD3, MD4 and would now have to comply (but not with the strength or energy dissipation requirements if they have provision for standing passengers). ME category vehicles would now have to comply (but not with the strength or energy dissipation requirements).

8. The UNECE requires rough edge tolerances to be met for MA, MB and MC. The ADR does not. These categories would now have to comply.

ADR 4/03

1. The UNECE prohibits the use of 4N retractors on MA, MB, and MC category vehicles and only allows their use on other categories on a case-by-case basis. However, it is proposed to exempt this requirement and allow them as unconditionally optional on suspension seats (the ADR requires 4N retractors to be fitted to all suspension seats).

2. The UNECE requires lap/sash seatbelts to be fitted to outboard 2nd row seats for MA, MD1, MD2, MD3, MD4, particularly where a seat is “unprotected”. This would now apply (the ADR allows lap belts only to be fitted to these positions if there is no “permanent structure” available for the upper anchorage).

3. The UNECE requires lap/sash seatbelts to be fitted to all centre seats for MA, MD1, MD2 and NC categories and front centre for NA, NB1 and NB2 category vehicles. An exception is for the front centre seat if not near the windscreen (defined), in which case only a lap belt is required. This would now apply (the ADR allows lap belts in all these positions).

4. The UNECE requires lap/sash seatbelts to be fitted to the driver and front outboard passenger seats for NC categories. An exception is if a seat is not near the windscreen (defined), in which case only a lap belt is required. This would now apply (the ADR allows lap belts in all these positions).

5. The UNECE requires lap/sash seatbelts to be fitted to some “non-protected” seats on MD, ME and NC category vehicles. This would now apply (the ADR generally requires lap belts only for these seats).

6. The UNECE prohibits Automatically Lengthening and Locking Retractors (ALALR) on M1 or MD (light) vehicle categories but allows them progressively on the heavier vehicle categories.

7. The ADR requires sub-tests to be carried out that refer in large part to Australian Standards. However, these Australian Standards have recently been updated to be based on the UNECE standards instead. This has the effect of aligning many of the sub-tests of ADR 4/03 and UNECE R 16/04. The alternative standards also list AS/NZS 2596:1995 as a full alternative to the ADR.

8. The ADR allows MD3, MD4, ME, NB2 and NC vehicle categories to comply with Federal Motor Vehicle Safety Standard No. 209 Seat Belt Assemblies as an alternative to the clauses of the ADR. This would normally no longer apply. However, it is proposed to allow it to continue.

9. The UNECE generally allows lap belts to be fitted to rear facing positions. The ADR generally requires that the same configuration as a forward facing position be fitted. This would no longer apply.

10. The ADR does not require seatbelts to be fitted to a route service omnibus other than for the driver. The UNECE extends this to the driver as well.

ADR 5/04

1. The UNECE includes requirements for ISOFIX design child restraint anchorages. It is proposed to exempt these requirements as they are not compatible with Australian arrangements that are well established in the vehicle fleet. The issue of ISOFIX needs a coordinated effort by the Australian Standards Committee, which is responsible for the standard for child restraints and DOTARS which is responsible for the anchorage system. Until such time as the matter is resolved the only option is to exempt vehicles from having to comply with the UNECE, ISOFIX requirements.

2. The UNECE strength test for anchorages includes the simultaneous application of seat inertia loads where a seatbelt anchorage is mounted on a seat. These would now apply. The ADR does require similar tests (at higher inertia levels for heavy vehicles) but these are done as part of the seat anchorage testing instead (with simultaneous application of seatbelt loads) in ADR 3/02 Seats and Seat Anchorages.

3. The ADR has test requirements for anchorages that are mounted on the same pillar. The UNECE does not, although the UNECE requirement to do simultaneous testing of multiple anchorages reduces the need for this. These would no longer apply.

4. The ADR allows anchorage strength on heavy vehicles to be deemed sufficient if a prescriptive design is followed (ie size and thickness of mounting area). This would normally no longer apply. However, it is proposed to allow it to continue.

ADR 22/00

1. The UNECE requires head restraints to be fitted to every outboard front seat of MD2 vehicle category.

2. The UNECE does not apply to LEP or LEG vehicle categories.

3. The UNECE does not include the option of testing to the US based dynamic test.

4. The ADR includes requirements for the height of a head restraint to be 700mm. The UNECE requires this to be 800mm (with conditions). This would now apply.

5. The UNECE does not apply to folding seats.

6. The UNECE includes an energy absorption test. This test is the same as the test in ADR 3/02 in lieu of ADR 22/00.

Appendix 4: Working Group Consultation

Business Associations representing Road Vehicle Suppliers
Commercial Vehicle Industry Association
Federal Chamber of Automotive Industries
Federation of Automotive Product Manufacturers

Associations representing Road Vehicle Users
Australian Automobile Association

Representatives of Australian Federal and State Governments
Australian Department of Transport and Regional Services
Roads and Traffic Authority, New South Wales

Commonwealth-State Intergovernmental Agency
National Transport Commission

Appendix 5: Vehicle Categories and Sub-Categories of Vehicle Categories

DETAILS OF VEHICLE CATEGORIES

TWO-WHEELED AND THREE-WHEELED VEHICLE CATEGORIES

PEDAL CYCLE (AA)
A vehicle designed to be propelled through a mechanism solely by human power.

POWER-ASSISTED PEDAL CYCLE (AB)
A pedal cycle to which is attached one or more auxiliary propulsion motors having a combined maximum power output not exceeding 200 watts.

MOPED - 2 Wheels (LA)
A 2-wheeled motor vehicle, not being a power-assisted pedal cycle, with an engine cylinder capacity not exceeding 50 ml and a '*Maximum Motor Cycle Speed*' not exceeding 50 km/h; or a 2-wheeled motor vehicle with a power source other than a piston engine and a '*Maximum Motor Cycle Speed*' not exceeding 50 km/h.

MOPED - 3 wheels (LB)
A 3-wheeled motor vehicle, not being a power-assisted pedal cycle, with an engine cylinder capacity not exceeding 50 ml and a '*Maximum Motor Cycle Speed*' not exceeding 50 km/h; or a 3-wheeled motor vehicle with a power source other than a piston engine and a '*Maximum Motor Cycle Speed*' not exceeding 50 km/h.

MOTOR CYCLE (LC)
A 2-wheeled motor vehicle with an engine cylinder capacity exceeding 50 ml or a '*Maximum Motor Cycle Speed*' exceeding 50 km/h.

MOTOR CYCLE AND SIDE-CAR (LD)
A motor vehicle with 3 wheels asymmetrically arranged in relation to the longitudinal median axis, with an engine cylinder capacity exceeding 50 ml or a '*Maximum Motor Cycle Speed*' exceeding 50 km/h.

SIDE-CAR
A car, box or other receptacle attached to the side of a motor cycle and for the support of which a wheel is provided.

MOTOR TRICYCLE (LE)
A motor vehicle with 3 wheels symmetrically arranged in relation to the longitudinal median axis, with a '*Gross Vehicle Mass*' not exceeding 1.0 tonne and either an engine cylinder capacity exceeding 50 ml or a '*Maximum Motor cycle Speed*' exceeding 50 km/h.

PASSENGER VEHICLES CATEGORIES (OTHER THAN OMNIBUSES)

PASSENGER CAR (MA)
A passenger vehicle, not being an off-road passenger vehicle or a forward-control passenger vehicle, having up to 9 seating positions, including that of the driver.

FORWARD-CONTROL PASSENGER VEHICLE (MB)
A passenger vehicle, not being an off-road passenger vehicle, having up to 9 seating positions, including that of the driver, and in which the centre of the steering wheel is in the forward quarter of the vehicle's '*Total Length.*'

OFF-ROAD PASSENGER VEHICLE (MC)
A passenger vehicle having up to 9 seating positions, including that of the driver and being designed with special features for off-road operation. A vehicle with special features for off-road operation is a vehicle that:

(a) Unless otherwise '*Approved*' has 4 wheel drive; and
(b) has at least 4 of the following 5 characteristics calculated when the vehicle is at its '*Unladen Mass*' on a level surface, with the front wheels parallel to the vehicle's longitudinal centreline, and the tyres inflated to the '*Manufacturer*'s' recommended pressure:
(i) '*Approach Angle*' of not less than 28 degrees;
(ii) '*Breakover Angle*' of not less than 14 degrees;
(iii) '*Departure Angle*' of not less than 20 degrees;
(iv) '*Running Clearance*' of not less than 200 mm;
(v) '*Front Axle Clearance*', '*Rear Axle Clearance*' or '*Suspension Clearance*' of not less than 175 mm each.

OMNIBUS CATEGORIES
A passenger vehicle having more than 9 seating positions, including that of the driver.
An omnibus comprising 2 or more non-separable but articulated units shall be considered as a single vehicle.

LIGHT OMNIBUS (MD)
An omnibus with a '*Gross Vehicle Mass*' not exceeding 5.0 tonnes.

HEAVY OMNIBUS (ME)
An omnibus with a '*Gross Vehicle Mass*' exceeding 5.0 tonnes

GOODS VEHICLE CATEGORIES
A motor vehicle constructed primarily for the carriage of goods and having at least 4 wheels; or 3 wheels and a '*Gross Vehicle Mass*' exceeding 1.0 tonne.
A vehicle constructed for both the carriage of persons and the carriage of goods shall be considered to be primarily for the carriage of goods if the number of seating positions times 68 kg is less than 50 percent of the difference between the '*Gross Vehicle Mass*' and the '*Unladen Mass*'.
The equipment and installations carried on certain special-purpose vehicles not designed for the carriage of passengers (crane vehicles, workshop vehicles, publicity vehicles, etc.) are regarded as being equivalent to goods for the purposes of this definition.
A goods vehicle comprising 2 or more non-separable but articulated units shall be considered as a single vehicle.

LIGHT GOODS VEHICLE (NA)
A goods vehicle with a '*Gross Vehicle Mass*' not exceeding 3.5 tonnes.

MEDIUM GOODS VEHICLE (NB)
A goods vehicle with a '*Gross Vehicle Mass*' exceeding 3.5 tonnes but not exceeding 12.0 tonnes.

HEAVY GOODS VEHICLE (NC)
A goods vehicle with a '*Gross Vehicle Mass*' exceeding 12.0 tonnes.

TRAILER CATEGORIES
A vehicle without motive power constructed to be drawn behind a motor vehicle.

VERY LIGHT TRAILER (TA)
A single-axled trailer with a '*Gross Trailer Mass*' not exceeding 0.75 tonne.

LIGHT TRAILER (TB)
A trailer with a '*Gross Trailer Mass*' not exceeding 3.5 tonnes, other than a trailer of Category TA.

MEDIUM TRAILER (TC)
A trailer with a '*Gross Trailer Mass*' exceeding 3.5 tonnes but not exceeding 10 tonnes.

HEAVY TRAILER (TD)
A trailer with a '*Gross Trailer Mass*' exceeding 10 tonnes.

DETAILS OF SUB-CATEGORIES OF VEHICLE CATEGORIES

3 Wheeled L-group Vehicles (LB)

Sub-category LB1 - one wheel at front, 2 at rear.
LB2 - 2 wheels at front, one at rear.

3 Wheeled L-group Vehicles (LE)

Sub-category

LE1 - one wheel at front, 2 at rear.
LE2 - 2 wheels at front, one at rear.

LEM1 - up to 450 kg '*Unladen Mass*' and
- the driver's *'Seat'* is of a saddle type and
- one wheel at the front, 2 at rear.

LEM2 - up to 450 kg '*Unladen Mass'* and
- the driver's *'Seat'* is of a saddle type and
- 2 wheels at front, one at rear.

LEP1 - over 450 kg '*Unladen Mass'* and/or
- the driver's *'Seat'* is not of a saddle type and/or
- has more than two seating positions and/or
- has a permanent structure to the rear of and
- 200 mm above the undeformed upper surface of the driver's '*Seat*' cushion and
- one wheel at the front, 2 at rear.

LEP2 - over 450 kg '*Unladen Mass*' and/or
- the driver's *'Seat'* is not of a saddle type and/or
- has more than two seating positions and/or
- has a permanent structure to the rear of and
- 200 mm above the undeformed upper surface of the driver's *'Seat'* cushion and
- 2 wheels at front, one at rear.

LEG1 - over 450 kg *'Unladen Mass'* and
- constructed primarily for the carriage of goods and
- one wheel at front, 2 at rear
- a vehicle constructed for both the carriage of persons and the carriage of goods shall be
considered to be primarily for the carriage of goods if the number of seating positions
times 68 kg is less than 50 per cent of the difference between the *'Gross Vehicle Mass*' and the '*Unladen Mass'*.

LEG2 - over 450 kg '*Unladen Mass'* and

- constructed primarily for the carriage of goods and
- 2 wheels at front, one at rear
- a vehicle constructed for both the carriage of persons and the carriage of goods shall be considered to be primarily for the carriage of goods if the number of seating positions times 68 kg is less than 50 per cent of the difference between the *'Gross Vehicle Mass'* and the *'Unladen Mass'*.

Forward-control Passenger Vehicle (MB)

Sub-category

MB1 - up to 2.7 tonnes '*GVM'*
MB2 - over 2.7 tonnes '*GVM*'

Off-road Passenger Vehicle (MC)
Sub-category
- MC1 - up to 2.7 tonnes '*GVM*'
- MC2 - over 2.7 tonnes '*GVM*'

Light Omnibus (MD)
Sub-category
- MD1 - up to 3.5 tonnes '*GVM*', up to 12 '*Seats*'
- MD2 - up to 3.5 tonnes '*GVM*', over 12 '*Seats*'
- MD3 - over 3.5 tonnes, up to 4.5 tonnes '*GVM*'
- MD4 - over 4.5 tonnes, up to 5 tonnes '*GVM*'
- MD5 - up to 2.7 tonnes '*GVM*'
- MD6 - over 2.7 tonnes '*GVM*'

Light Goods Vehicle (NA)
Sub-category
- NA1 - up to 2.7 tonnes '*GVM*'
- NA2 - over 2.7 tonnes '*GVM*'

Medium Goods Vehicle (NB)
Sub-category
- NB1 - over 3.5 tonnes, up to 4.5 tonnes '*GVM*'
- NB2 - over 4.5 tonnes, up to 12 tonnes '*GVM*'

Appendix 6: List of Abbreviations

ADR	Australian Design Rule
ANCAP	Australian New Car Assessment Program
ATC	Australian Transport Council – a council of transport ministers
AVSR	Australian Vehicle Standard Regulation
BTE	Bureau of Transport Economics
COAG	Council of Australian Governments
DOTARS	Department of Transport and Regional Services
ECE	Economic Commission for Europe
EEC	European Economic Community
FAPM	Federation of Automotive Product Manufacturers
FCAI	Federal Chamber of Automotive Industries
FMVSS	Federal Motor Vehicle Safety Standards
MVSA	Motor Vehicle Standards Act 1989
NTC	National Transport Commission
RIS	Regulation Impact Statement
RTA	Roads and Traffic Authority, New South Wales
TACE	Transport Agencies Chief Executives – CEOs of Transport Departments
TPA	Trade Practices Act 1974
UN	United Nations
WTO	World Trade Organisation

Appendix 7: Public Comment

The following is a list of the parties that responded to the invitation for public comment. Comments were recorded below only where they required further discussion within the Regulatory Impact Statement. Only representative bodies have had their names published.

Organisation	Comments	Discussed further on page:	Summary of departmental response
Private citizen 1			
Specialist car manufacturer 1			
Specialist car manufacturer 2	propose that EEC approvals be accepted	27	Not agreed. Australia can not gain access to the EEC standards setting arrangements or EEC approvals as they are not internationally based. Access is fundamental to the integrity of the Australian type approval system. In many cases, the test results from an EEC approval can still be used towards Australian certification.
Military equipment manufacturer	ADR 4 propose that static 4 point belts be allowed for military purposes	6	Agreed. However, there are existing provisions in the Motor Vehicle Standards Act to approve specific purpose vehicles where meeting the standards would compromise the designed purpose (such as some military vehicles).
Australian Automotive Aftermarket Association Ltd			
Australian Automobile Association	ADR 3 support requiring the luggage displacement test	33	Agreed. There has been no objection to the test which will therefore be adopted
Low volume scheme car importer	support Option 6	27	Not agreed. Any cost reduction in testing is likely to be exceeded by greater administrative costs in maintaining expertise and experience with a range of alternative standards. Note: Low volume importers already have some additional access to alternative standards.
Australian based truck manufacturer	support Option 6	27	
Commercial vehicle seat manufacturer	ADR 3 allow for static testing of seat anchorages, ADR 4 mandate 4N type retractors on suspension seats, mandate a driver's seat belt for route service omnibuses, mandate Belt In Seat (BIS) designs for suspension seats.	33, 34, 36, 35	(a). Agreed. As a static test (to the same loads) generally would be as severe a test as a dynamic test, this option will be included. (b) Not agreed. Making them optional is a compromise between the UNECE and current ADR position. There is an overlap in requirements that mean that in some cases the same retractors are being legitimately labelled as either ELR or 4N. (c) Not agreed. There is an extremely low risk of injury from a

			crash for an occupant of a route service bus and is one reason why seatbelts are not mandated for any other occupant. (d) Not agreed. Market forces alone have acted to bring in the common use of suspension seats with built in seatbelts.
Japanese based truck manufacturer 1	propose a 5 year lead time to allow for finalising of design for emission/noise regulations.	42	Not agreed. The option of a 24 month lead time for new model vehicles with no end date for all model vehicles has now been agreed within a stakeholder forum (the Technical Liaison Group).
National Transport Commission			
Consultant engineering company	support Option 6 ADR 5 propose that EEC approvals be accepted as an alternative to the NC category "design by calculation" requirements.	27	Not agreed. See previous comments.
Japanese based truck manufacturer 2	advise that draft ADR 5 may not be referring to the latest UNECE version.	42	Agreed. The draft text of the ADRs as provided during the public comment period will be reviewed and revised to ensure that any incorporated standards are the latest version.
Queensland Transport	ADR 3 support requiring the luggage displacement test but propose a static test for low volume manufacturers etc. ADR 4 mandate a driver's seat belt for route service omnibuses.	33, 36	(a) Agreed, see previous comments. Note: low volume manufacturers would come under an alternative evidence scheme. (b) Not Agreed. See previous comments.
Federal Chamber of Automotive Industries	propose 24 months lead time for "new model vehicles" and open ended for " all model vehicles"	42	Agreed. See previous comments.
Japanese based truck manufacturer 3	support Option 6	27	Not agreed. See previous comments.
Motor Trades Association of Australia			
Commercial Vehicle Industry Association of Australia	ADR 3 allow for static testing of seat anchorages, ADR 4 mandate 4N type retractors on suspension seats, mandate a driver's seat belt for route service omnibuses, remove conflicting/unclear requirements relating to ADR 68/00, ADR 5 allow separate testing of seat and structure where anchorages are on seats, mandate pelvic restraints on seats for suspension seats.	33, 34, 36, 38, 39, 35	(a) Agreed. See previous comments. (b) Not agreed. See previous comments. (c) Not agreed. See previous comments. (d) Agreed. Changes have been made. (e) Agreed. Changes have been made. (f) Not agreed. See previous comments.