

Vehicle Standard (Australian Design Rule 105/00 – Blind Spot Information Systems) 2023 Amendment 1

Made under section 12 of the *Road Vehicle Standards Act 2018*

Explanatory Statement

Approved by the Hon Anthony Chisholm, Assistant Minister for Regional Development

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1. LEGISLATIVE AUTHORITY

1.1. National Road Vehicle Standards

The Vehicle Standard (Australian Design Rule 105/00 – Blind Spot Information Systems) 2023 Amendment 1 (“the Amending Instrument”) is made under section 12 of the *Road Vehicle Standards Act 2018* (RVSA).

The RVSA enables the Australian Government to establish nationally uniform standards that apply to new road vehicles or road vehicle components when they are provided to the market in Australia for the first time. The RVSA applies to vehicles or components whether they are manufactured in Australia or imported.

The making of the vehicle standards necessary for the RVSA’s effective operation is provided for in section 12, which empowers the Minister to “determine standards for road vehicles or road vehicle components”. These standards are also referred to as the Australian Design Rules (ADRs).

Subsection 33(3) of the *Acts Interpretation Act 1901* provides, in part, that the power to amend instruments is conferred by the same power to make the instrument.

1.2. Exemption from Sunsetting

The ADRs are exempt from the sunsetting provisions of the *Legislation Act 2003*.

Source of the Exemption

A standard made under section 12 of the RVSA is not subject to the sunsetting provisions of section 50 of the *Legislation Act 2003* through section 12 of the *Legislation (Exemptions and Other Matters) Regulation 2015* (table item 56C). A similar exemption was previously granted in respect of national road vehicle standards made under section 7 of the *Motor Vehicle Standards Act 1989* (MVSA) (item 40, section 12 of the *Legislation (Exemptions and Other Matters) Regulation 2015*). This exemption is important to ensure that ADRs, including those amended by the Amending Instrument, continue to remain in force and available to regulators, industry and the public.

Intergovernmental Dependencies

The exemption concerns ADRs that facilitate the establishment and operation of the intergovernmental vehicle standard regime that Commonwealth, state and territory governments rely on to regulate the safety of vehicles on public roads.

The Commonwealth uses the ADRs as the basis on which approvals to supply types of road vehicles to the market are granted under the *Road Vehicle Standards Rules 2019*. States and territories and the National Heavy Vehicle Regulator use the ADRs as the primary criteria on which vehicles are assessed for road worthiness. This ‘in-service’ aspect is dependent on the date of manufacture, which determines the applicable version of the ADRs against which the vehicle can be assessed. The ability to rely on national standards is particularly relevant given the long service life of vehicles – the average age of vehicles in Australia is over 10 years.

While the ADRs are regularly updated to reflect changes in technology, it is generally not possible to apply these new standards retrospectively to vehicles that are already in use. With former ADRs kept on the Federal Register of Legislation, state and territory governments can use them to ensure vehicles continue to comply with the ADRs that were in force when they were first supplied to the market.

In the event that the Commonwealth could not justify the maintenance of the ADRs, state and territory governments would be compelled to create their own vehicle standards. Whilst this could mean adopting the substance of the lapsed ADRs as an interim measure, the differing needs and agendas of each state and territory government may result in variations to in-service regulations. Having different vehicle standards across the states and territories would make the scheme operate contrary to the underlying policy intent of the RVSA which is to set nationally consistent performance-based standards.

Commercial Dependencies

The effect on vehicle manufacturers to redesign existing models to comply with new ADRs would present a burden and be a costly and onerous exercise. Manufacturers should not be expected to continually go back to redesign existing vehicle models that are still being newly supplied to the market. Furthermore, ongoing product recalls to update vehicles to comply with new ADRs (where such an update is feasible) would undermine consumer confidence with significant financial impact to manufacturers. This exemption allows vehicle manufacturers to focus their efforts to ensure new models supplied to the market continue to comply.

Reviews of Australian Design Rules

ADRs are subject to regular reviews, as resources permit, and when developments in vehicle technology necessitates updates to requirements. Reviews of the ADRs ensure the ongoing effectiveness of a nationally consistent system of technical regulations for vehicle design, which are closely aligned, wherever appropriate with leading international standards such as United Nations (UN) regulations. This method facilitates the rapid introduction of the latest safety devices and technological advances into the Australian market, while also contributing to the industry's cost competitiveness in the domestic market. Where a review results in a new or amended ADR, these changes are subject to full parliamentary scrutiny.

2. PURPOSE AND OPERATION

2.1. Overview of the Regulatory Framework

The RVSA establishes a framework to regulate the importation and first provision of road vehicles to the market in Australia. The core principle of this framework is that vehicles that comply with appropriate standards are suitable for provision to the market in Australia. The ADRs have set out those standards since the early 1970s. At that time, they were applied cooperatively by the Australian Motor Vehicle Certification Board representing the Commonwealth and state and territory governments. In 1989, this arrangement was replaced by the MVSA and the ADRs were determined as national standards. The RVSA commenced in full and replaced the MVSA on 1 July 2021. A two-year transition period was provided between 1 July 2021 and 30 June 2023.

Under the RVSA, the ADRs are national road vehicle standards intended to make vehicles safe to use, control the emission of gas, particles or noise, secure vehicles against theft, provide for the security marking of vehicles and promote the saving of energy. The ADRs are applied to vehicles as criteria for approval under various regulatory pathways set out in the Road Vehicle Standards legislation. Vehicles approved under these regulatory pathways can be provided to the market in Australia for use in transport.

2.2. Overview of the Amending Instrument

The purpose of the Amending Instrument is to clarify the performance requirements in ADR 105/00 for smaller bicycles and smaller bicyclists, differing by up to 36 per cent from the dimensions for a standardised bicyclist target for a 50-percentile male adult.

Schedule 1 Amendments

Schedule 1 amends the Vehicle Standard (Australian Design Rule 105/00 – Blind Spot Information Systems) 2023 (ADR 105/00). The purpose of ADR 105/00 is to specify requirements for a Blind Spot Information System (BSIS) fitted to medium and heavy goods vehicles, to inform the driver of a possible collision with a bicycle on the near side and therefore avoid or mitigate the severity of a collision between a turning vehicle and a bicyclist. This is achieved through the early activation of an optical information signal, when a bicycle enters a critical area on the near side (passenger's side) of the goods vehicle, where a collision could occur if the goods vehicle were to initiate a left-turn towards the bicycle, including situations where a counter-turn (away from the bicycle) is necessary to negotiate the turn. A different signal (which may be an optical signal, acoustical signal, haptic signal or any combination of these signals), must be provided when the risk of collision increases, for example, when a clear turn on the steering wheel or the operation of the left-turn indicators is detected, while a bicycle is in the critical area.

Items [1] and [2] are included to repeal and replace clause 6.2 of the ADR. The reason for clause 6.2 of the ADR is to vary the definition of 'bicycle' in paragraph 2.12 of Appendix A, to replace the reference to ISO [CD] 19206-4 (which is an ISO committee draft from 2018), with ISO 19206-4:2020 (which followed on from the 2018 committee draft and is the only currently available version of this standard). However, while ISO [CD] 19206-4 included specifications for an adult bicyclist target, ISO 19206-4:2020 includes specifications for both an adult bicyclist target and a 6-7-year old child bicyclist target. Therefore, to ensure the requirements between the ADR (which references the currently available ISO 19206-4:2020) and the United Nations (UN) Regulation No. 151 (R151) (which references the earlier ISO committee draft) are technically comparable, the replacement clause 6.2 varies paragraph 2.12 of Appendix A to specify an 'adult bicyclist target in accordance with ISO 19206-4:2020'.

Items [3] and [4] are included to repeal and replace clause 6.4.1 of the ADR. The purpose of clause 6.4.1 of the ADR is to specify requirements in relation to the performance of the BSIS for smaller bicycles and smaller bicyclists, to replace those in paragraph 5.3.2 of Appendix A. The reasons for this are to replace the reference to ISO [CD] 19206-4:2018 (which is an ISO committee draft from 2018), with references to ISO 19206-4:2020 (which followed on from the 2018 committee draft and is the only currently available version of this standard), as well as to provide more clarity on the options to demonstrate the BSIS 'is performing as specified' for 'smaller bicycles and smaller bicyclists'.

The intention of the replacement clause 6.4.1 is to require comparable evidence of BSIS performance for smaller bicycles and smaller bicyclists, to what is needed to satisfy UN type approval authorities and their designated technical services for the purposes of an approval to UN R151. Three options are provided to demonstrate that a BSIS will also perform as specified for smaller bicycles and smaller bicyclists, differing by up to 36 per cent from the nominal dimensions detailed in ISO 19206-4:2020 for the adult bicyclist target. These include physical testing (using a child bicyclist target in accordance with ISO 19206-4:2020), simulation (which must be sufficiently validated by physical testing to accurately establish how the BSIS would perform for a child bicyclist target in accordance with ISO 19206-4:2020), and another documented means (which must be sufficiently valid and accurate to establish how the BSIS would perform for a child bicyclist target in accordance with ISO 19206-4:2020).

The child bicyclist target in ISO 19206-4:2020 is designed to represent a six-to-seven-year-old child riding a suitably sized bicycle, with overall dimensions around 36 per cent smaller than the nominal dimensions for the adult bicyclist target. The adult bicyclist target is designed to represent a 50-percentile adult male riding a suitably sized bicycle.

Physical testing to validate simulation models can include various testing of components, sub-assemblies, and/or vehicles. The accuracy of the simulation model can be established by comparing mathematical outputs for the model with results of physical tests. Other documented means which could be used to establish the BSIS will perform as specified in Appendix A for smaller bicycles and smaller bicyclists, include (but are not limited to) other supporting information on the design, specifications and operation of the BSIS (e.g. measured sensor response for smaller bicycles and smaller bicyclists in comparison to the adult bicyclist target; the BSIS response to this sensor data for smaller bicycles and smaller bicyclists in comparison to sensor data for the adult bicyclist target; other hardware in the loop test results).

Where simulation or another documented means is used to demonstrate the BSIS performance for smaller bicycles and smaller bicyclists, these must be sufficiently valid and accurate to establish how the BSIS would perform for a child bicyclist target in accordance with ISO 19206-4:2020. The intention here is that the BSIS would perform as specified, for this ISO child bicyclist target, which is a standardised proxy for a combination of a bicycle and cyclist, around 36 per cent smaller overall than the adult bicyclist target. Physical tests with this ISO child bicyclist target may be used to verify the accuracy of a simulation model or another documented means, but are not necessarily required. Other validation means (e.g. other physical tests, hardware in the loop tests) may be used where fit for purpose.

3. MATTERS INCORPORATED BY REFERENCE

3.1. Legislative Instruments

Each legislative instrument (ADR) that is specified in a schedule to the Amending Instrument is amended as set out in the applicable items in the schedule concerned.

The ADRs may be freely accessed online through the Federal Register of Legislation. The website is www.legislation.gov.au.

3.2. Other Documents

Schedule 1 to the Amending Instrument omits a reference to ISO [CD] 19206-4 and incorporates references to ISO 19206-4:2020. These documents specify the properties and performance requirements for bicyclist targets to represent a human bicyclist in terms of shape, movement, reflection properties, etc. for testing purposes. The bicyclist targets are used to assess the system detection and activation performance of active safety systems.

In accordance with paragraph 14(1)(b) and subsection 14(2) of the *Legislation Act 2003*, ISO 19206-4:2020 (wherever referenced) is incorporated as in force on the date this Amending Instrument is made.

ISO standards are all available for purchase only from the ISO and various associated national standards bodies. While not freely available, ISO 19206-4:2020 is readily accessible and widely used by vehicle manufacturers and test facilities as part of their professional libraries. Subject to copyright conditions, people may view a copy of ISO 19206-4:2020 at the Offices of the Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts in Canberra.

ISO [CD] 19206-4 is not required for the purposes of ADR 105/00, as the reference to this document is replaced with ISO 19206-4:2020 within Item [2] of the Amending Instrument.

Section 12 of the RVSA allows the Minister to incorporate a broad range of documents, including as in force or existing at a particular time or as in force from time to time, when making national road vehicle standards. This ensures that Australia's legislative framework is well-prepared for future developments in the international road vehicle space.

4. CONSULTATION

4.1. General Consultation Arrangements

It has been longstanding practice to consult widely on proposed new or amended vehicle standards. For many years, there has been active collaboration between the Commonwealth and the state and territory governments, as well as consultation with industry and consumer groups. Much of the consultation takes place within institutional arrangements established for this purpose. The analysis and documentation prepared in a particular case, and the bodies consulted, depend on the degree of impact the new or amended standard (or package of new or amended standards) is expected to have on industry or road users.

Proposals that are regarded as significant need to be supported by an Impact Analysis (IA) meeting the requirements of the Office of Impact Analysis (OIA) as published in the *Australian Government Guide to Policy Impact Analysis* or the *Regulatory Impact Analysis Guide for Ministers' Meetings and National Standard Setting Bodies*.

4.2. Specific Consultation Arrangements

The Commonwealth's two major consultative groups for the development and administration of the ADRs are the Road Vehicle Regulators' Forum (RVRF) and the Vehicle Standards Consultative Forum (VSCF). RVRF consists of the Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts (the Department) as the Commonwealth representative, state and territory governments, the New Zealand Government and Australian Government entities including the National Heavy Vehicle Regulator (NHVR), Austroads and the National Transport Commission. VSCF consists of the same members as the RVRF with the addition of peak bodies representing the vehicle industry, consumers and road safety.

The Department consulted with the RVRF and the VSCF. Several submissions were received in support of the proposal, and there were no objections.

5. REGULATORY IMPACT

5.1. Impact Analysis

The Department consulted with the OIA within the Department of the Prime Minister and Cabinet on this Amending Instrument, following the consultation with the RVRF and VSCF. A Preliminary Impact Analysis was completed, and the OIA advised that further detailed analysis is not required under the Australian Government's Policy Impact Analysis Framework. The reference number is OIA25-10695.

5.2. Benefits and Costs

The changes in the Amending Instrument, which are to clarify the performance requirements for smaller bicycles and smaller bicyclists, should reduce regulatory costs, while maintaining all the safety benefits intended for the originally made version of the ADR.

6. STATEMENT OF COMPATIBILITY WITH HUMAN RIGHTS

The following statement is prepared in accordance with Part 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

6.1. Overview

The Amending Instrument clarifies the performance requirements in ADR 105/00 for smaller bicycles and smaller bicyclists, differing by up to 36 per cent from the dimensions for a standardised adult bicyclist target.

6.2. Human Rights Implications

The Amending Instrument does not engage any of the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

6.3. Conclusion

The Amending Instrument is compatible with human rights, as it does not raise any human rights issues.