

Director
Vehicle Standards
DITRDCA
GPO Box 2154
Canberra ACT 2601
standards@infrastructure.gov.au

17 November 2023

Dear Consultation Team,

Re: Proposal to improve vehicle occupant safety in side impact collisions – ADR 72/01

The Australasian College of Road Safety is the region's peak membership association for road safety with a vision of eliminating death and serious injury on the road. Our members include experts from all areas of road safety including policy makers, health and transport professionals, academics, community organisations, researchers, federal, state and local government agencies, private companies and members of the public. The purpose of the College is to support our members in their efforts to eliminate serious road trauma through knowledge sharing, professional development, networking and advocacy. Our objectives include the promotion of road safety as a critical organisational objective within government, business and the community; the promotion and advocacy of policies and practices that support harm elimination; the improvement of relative safety outcomes for vulnerable demographic and user groups within the community; the promotion of post-crash policies and practices; and the promotion of a collegiate climate amongst all those with responsibilities for and working in road safety.

The College believes that we should prevent all fatal and serious injury on our roads; that the road traffic system must be made safe for all road users; that system designers should aim to prevent human error and mitigate its consequences; that life and health are not exchangeable for other benefits in society; and that all ACRS policy positions must be evidence based.

The ADR 72-Dynamic Side Impact Occupant Protection specifics crash worthiness requirements intended to reduce the likelihood of injury to vehicle occupants in a side impact crash. The current version of ADR 72 does not consider the potential of vehicles with high voltage battery systems to be damaged in a side impact crash and cause electrocutions, fires and chemical burns.

The proposed amendments will realign the requirements with internationally harmonised United Nations Regulation 95 and require all vehicles fitted with electric drivetrains to be assessed against additional criteria related to the prevention of electrocutions, fires and chemical spills from those systems after a side impact crash.

ACRS is broadly supportive of the proposed changes, however, recognises that if Australia is to be a world leader in vehicle safety, we need to lead in some areas, rather than just following global standards. There are some areas in the proposed Standard which could be made more specific.

- Paragraph 5.3.3.1 – There should be a maximum force requirement to open the doors post-test, to ensure people can exit the vehicle. For example, 500N or 750N, rather than simply ‘without the use of tools’.
- Paragraph 5.3.3.2 – There should be a maximum force requirement to release the seat belt buckle.
- Annex 5, 1.2 – A 950kg trolley travelling at 50 km/hr represents a low amount of energy in today’s driving environment. Both the mass and trolley velocity should be increased to make the test more relevant and to stretch manufacturers to provide better protection in side impacts.
- Annex 6 – The dummy used in this test should be a WorldSID rather than the old ES2. The ES2 technology is now over 40 years old having been developed in the 1980s. The WorldSID is able to deliver far more relevant and meaningful injury criteria and should be the reference test dummy for modern vehicles¹.

With the increase in sales of SUVs in Australia², the barrier profile must be considered, particularly for side impact crashes of an SUV into a sedan.

ACRS appreciates the opportunity to comment on this proposal and contribute to improving the safety of our vehicles. Please do not hesitate to contact me should you require and further information.



Dr Ingrid Johnston
CEO
Australasian College of Road Safety

¹ Kim T, Shaw G, Lessley D, Park G, Crandall J, Svendsen A, et al. Biofidelity evaluation of WorldSID and ES-2re under side impact conditions with and without airbag. *Accident Analysis & Prevention*. 2016;90:140-51.

² Martin P. Where did the cars go? How heavier, costlier SUVs and utes took over Australia’s roads. *The Conversation*. 2023 17 October 2023. <https://theconversation.com/where-did-the-cars-go-how-heavier-costlier-suvs-and-utes-took-over-australias-roads-215774>