

Canberra Pedestrian Forum  
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19 September 2008

Mr Nick Dimopoulos  
Chief Executive  
National Transport Commission  
L15/628 Bourke Street  
MELBOURNE VIC 3000

cc. Julian Del Beato (by email)

**CANBERRA PEDESTRIAN FORUM SUBMISSION on  
Australian Vehicle Standards Rules Amendment Package 2008**

Dear Mr Dimopoulos

The Canberra Pedestrian Forum provides the following submission on two of the proposed amendments to the Australian Vehicle Standards Rules:

- *Non-application of Vehicle Standards to matters permitted under the Australian Design Rules; and*
- *Protrusions – Rule 30.*

**Non-application of Vehicle Standards to matters permitted under the  
Australian Design Rules**

The Canberra Pedestrian Forum submits that:

1. the Draft Regulatory Impact Statement for this proposed change is completely inadequate, given that the change will affect every existing and future standard;
2. retrospective application of new vehicle standards to older vehicles or vehicle components should be considered in conjunction with each revision of the applicable standards, rather than being made automatic; and
3. if this proposal will affect the legal status of current vehicles equipped with bullbars which do not comply with current Australian Standards or with the current Australian Design Rules, then it should be reconsidered as part of the proposed change to *Protrusions – Rule 30.*

**Background**

In most cases, new standards improve on previous standards.

However, the design of a modern vehicle is highly integrated. Each component of the vehicle interacts with many other components. Applying new standards to old vehicles can have unintended consequences.

For example, the voltage of motor vehicle electric systems has progressively increased over time, in part to avoid the heavy electrical wiring that is required at lower voltages. Six volt systems were phased out in the 1960s, in favour of 12 volt systems. Cars are now being

designed with 42 volt electrical systems, and 200 volt systems are already available in petrol-electric hybrid cars.

A pair of 60 watt headlights requires only 0.4 amps of current at 200 volts, but 3 amps at 42 volts and 10 amps at 12 volts.

The use of future standard 200 volt (0.4 amp) or 42 volt (3 amp) headlight wiring in a current vehicle with a 12 volt (10 amp) headlight system could result in the design electrical current being exceeded, causing the wiring to overheat and the vehicle to catch fire.

### **Protrusions – Rule 30**

The Canberra Pedestrian Forum submits that:

1. Any revision to Australian Design Rule (ADR) 69 or 73 should be fully consistent with Australian Standard (AS) 4876.1, and should provide increased harmonisation of ADRs with international standards; and
2. The Draft Regulatory Impact Statement for the proposed change should be revised to include a full cost-benefit analysis, and should be reissued for public comment. The revised cost-benefit analysis should consider:
  - The benefits of full compliance with AS 4876.1;
  - the full effect of bullbars on the safety of vehicle occupants;
  - benefits of reduced cyclist deaths; and
  - benefits of reduced injuries to occupants, pedestrians and cyclists, from requiring full compliance with AS 4876.1.

Our supporting comments are as follows.

#### **1. Any revision to Australian Design Rule (ADR) 69 or 73 should be fully consistent with Australian Standard (AS) 4876.1, and should provide increased harmonisation of ADRs with international standards.**

The Draft Regulatory Impact Statement states that, "*References to compliance with AS 4876.1 in this report exclude compliance with Clause 3.2 (Road user protection criterion) of the Standard.*"

The Draft Regulatory Impact Statement provides substantial evidence that polymer bullbars are safer than aluminium or steel bullbars. Yet under the proposed changes the compliance of the bullbar will be determined solely by the shape of the bullbar, without regard to the materials of which the bullbar is made.

Bullbar approvals should be based on sound evidence such as the tests specified in AS 4876.1, and not simply on an untested belief that bullbars will be safe if they have "*frontal protection systems replicating the profile of the vehicle section to which it is attached.*" [Draft Regulatory Impact Statement, p.7]. We note that this proposed requirement should exclude most current bullbars from being approved because they feature spaced horizontal bars. Spaced horizontal bars should not be permitted, because:

- except in rare cases, they do not replicate the profile of the vehicle to which they are attached;

- they increase the severity of injuries from the initial impact, by concentrating the impact into a small surface area; and
- they reduce the likelihood that, in a collision, the pedestrian or cyclist will slide up and over the front of the vehicle.

This requirement appears to preclude bullbars that have profiles safer than those of the vehicles to which they are attached. For example, many vehicles have vertical rather than sloping front profiles. They might be safer if they were fitted with bullbars angled to sweep pedestrians up over the bonnet rather than forwards into the path of the wheels.

Harmonisation of Australian standards with international standards will permit Australian vehicles to use bullbars designed to comply with those standards. It will also facilitate the development of an Australian bullbar export market, because bullbars manufactured to Australian standards will also meet international standards.

In a separate submission, Alan Parker of People for Ecologically Sustainable Transport has compared the proposed Australian bullbar standards with overseas standards, and concluded that the current proposal will widen the gap between Australian and international standards.

**2. The Draft Regulatory Impact Statement for the proposed change should be revised to include a full cost-benefit analysis, and should be reissued for public comment. The revised cost-benefit analysis should consider:**

➤ **The benefits of full compliance with AS 4876.1**

The economic analysis in the Draft Regulatory Impact Statement does not consider full compliance with AS 4876.1.

➤ **the full effect of bullbars on the safety of vehicle occupants.**

The Draft Regulatory Impact Statement does not consider the costs of vehicle occupant deaths, and additional injuries, that result from rigid bullbars that prevent body panels from crumpling in order to absorb some of the force of the impact.

➤ **Benefits from reduced cyclist deaths**

The Draft Regulatory Impact Statement does not consider the impact of bullbars on cyclist deaths.

➤ **Benefits of reduced injuries to occupants, pedestrians and cyclists, from requiring full compliance with AS 4876.1**

The economic analysis in the Draft Regulatory Impact Statement does not consider injuries, whose reduction will be the principal economic benefit of improved bullbar standards. There are many more road injuries than road deaths. Furthermore, because of long-term medical costs, the insurance cost for an injury is typically greater than that for a death.

Submitted on behalf of the Canberra Pedestrian Forum

Leon Arundell  
Convenor