Changes Since 2002

However since 2002 Standards Australia has been undergoing major change. The new Standards Australia is tasked with developing standards which are balanced, transparent and free of sectional interest. but must now operate as a not-for-profit commercial enterprise without government subsidy[1]. The development of standards is expected to be funded by stakeholders driven by public benefit and national interest, not driven by sales. SAIGlobal was the certification arm of Standards Australia. It has lost its control of the certification of products to the Australian standards. This is of particular concern in relation to road safety equipment such as helmets and child restraints, because responsibility for these products falls between a number of State and Federal agencies.

In the past, consumers and police were able to rely on the SAIGlobal trademark of 5 ticks, see Figure 1, to easily identify certified helmets and child restraints. SAIGlobal required ongoing testing of a random sample of helmets from every manufactured batch to ensure the quality of the product through its production life. The strength of this system was demonstrated in a 2004 study funded by the Australian Transport Safety Bureau (ATSB)[2] . The study tested 100 bicycle helmets randomly selected from the market. Half of the helmets had been certified under the AS batch testing system and half under the Snell certification system which does not require batch testing. All of the 50 AS certified helmets (purchased in Australia) passed all tests except one helmet which was discovered to have been fraudulently labelled. None of the 50 Snell helmets (purchased in the US) passed all of the tests specified for Snell certification.

Figure 1 The SAIGlobal, 5ticks' Standardsmark™, see www.saiglobal.com.

There are now appear to be at least 7 agencies, each with their own different certification mark, certifying bicycle and motorcycle helmets and at least 4 for CRSs. But confusion over different labels is the least of our concerns, the major issue is that there is no single agency nor mandated system for ensuring the quality of the certification by such agencies.

SAIGlobal is now an independent company in the business of supplying standards information, education and certification services in competition with other similar organisations worldwide. A Joint Accreditation Scheme of Australia and New Zealand (JAS-ANZ) has been set up to monitor these certifying organisations, but at present there is no controlling regulation for certification of any of the safety equipment discussed here. A further problem also exists because the product standards have continued to be developed for the previous system, where SAIGlobal had control. The three standards at this point do not contain specific certification requirements.

In order to address these issues, the NSW Road Safety Centre has been making representations to the Minister in two areas:

- To change the regulations at State level to include the product standard and also the requirement for the accreditation agency to belong to JAS-ANZ; and,
- To include explicitly in each of the individual product standards the requirements for the certifying agency to follow.

If we are to protect and maintain the current high standard of safety system certification in Australia, this action needs to be supported, and if they have not already done so, the other States need to be encouraged into taking similar action to NSW.

Two further the extra measures should also be adopted:

- A common certification label needs to be developed to ensure easy and efficient recognition by the Police and consumers of approved safety equipment. This could be defined within the product standard; and,
- A surveillance system needs to be implemented to ensure that approved CRS and helmets on the Australian market do meet the requirements of the product standard.

Roads and Motorcycling: Raising the Profile

By Chris Brennan, VicRoads

Abstract

Throughout the western world, motorcyclists, as a minority group on the roads, often don't receive the attention amongst road designers, maintenance workers and road engineers that their crash profile suggests is required. Since 2004, VicRoads has been raising the profile of the specific, and often unique, needs of riders to facilitate safer riding. Specific hazards for motorcyclists may not be as hazardous for other road users; e.g. potholes, loose gravel on a curve, slippery or sunken pit lids, and impaired sightlines. This paper describes the approach taken by VicRoads in getting motorcycle safety "front of mind" for people involved in road design, building or maintenance, as well as the challenges faced in reaching external road managers.

Introduction

The number of motorcycles and scooters on Victoria's roads has experienced significant growth over the last decade (a 72% increase in motorcycle registrations in the ten years to 2008).

[1] www.standards.org.au/downloads/SA_Corporate_Brochure.pdf

[2] Gibson T and Cheung A (2004) "Assessing the Level of Safety Provided by the Snell B95 Standard for Bicycle Helmets." Road Safety Research Report CR202, ATSB, Canberra.

However, in conjunction with this growth, motorcyclists are over-represented in crash and injury statistics, accounting for 13% of fatal and serious injuries, yet making up only 3% of all registered vehicles and less than 1% of traffic volume.

A combination of factors is generally at play in any motorcycle crash. Such factors include driver and rider behaviour relating to speed, fatigue, and the presence of alcohol or other drugs. Other factors may be vehicle-related, such as the absence of vehicle safety technologies or the maintenance of a safe vehicle. However the profile of the road surface and environment can influence both the possibility of avoiding a crash and the severity of injury to a motorcyclist in the event of a crash.

As a two-wheeled vehicle, motorcycles have dynamic stability characteristics that are unique when compared to four-wheeled vehicles. Motorcycle stability is much more sensitive to changes in shape, texture or skid resistance of the road surface. Specific hazards for motorcyclists may not be as hazardous for other road users; e.g. potholes, loose gravel on a curve, slippery or sunken pit lids, and impaired sightlines. This provides increasing challenges for those involved in designing, constructing and maintaining Victoria's road network.

Road safety countermeasures and specifications tend to focus on the areas that will have the greatest impact in reducing road trauma. Motorcyclists are such a small proportion of all road users, and there has been a tendency to develop guidelines and specifications for the majority of motorists. The best example of a resource that specifically targets motorcycle safety is the Austroads *Guide to Traffic Engineering Practice Part 15: Motorcycle Safety,* first published in 1999. Whilst this guide provides good advice for road engineers, widespread knowledge of the best practice it demonstrated can still be improved.

'Making roads motorcycle friendly'

Following a review of engineering maintenance practices to identify potential improvements in motorcycle safety, VicRoads developed a resource titled 'Making Roads Motorcycle Friendly'. This resource was developed to raise the profile of motorcycle safety issues pertaining to the engineered road environment. Whilst small pockets of work had previously been done to raise the profile of motorcycle safety, the Making Roads Motorcycle Friendly resource demonstrated a strategic, coordinated approach to bring motorcycle safety to 'front of mind' for all people involved in road design, construction, maintenance and roadworks.

The Making Roads Motorcycle Friendly communication tools include:

- a slideshow presentation and notes for use in a 2 hour seminar to be delivered regionally.
- *Making Roads Motorcycle Friendly* DVD that presents the riders perspective and seeks to raise awareness of key safety issues.
- Booklet: *Making Roads Motorcycle Friendly - A guide for road design, construction and maintenance*, for engineers and managers involved in road development, design, construction, maintenance or reinstatement.
- Brochure: *Making roads Motorcycle Friendly - A guide for working on roads* for field staff involved in road works.

These tools are designed to raise awareness of the vulnerability of motorcyclists in terms of the road environment and encourage consideration of how road design, construction, maintenance and roadworks can be carried out in a way that improves safety for motorcyclists, or as a minimum not be detrimental to their safety.

The communications strategy is designed to enable a flow of information throughout the targeted organisations. Delivery of the key information involves a two-hour seminar, a take away kit of materials, and workplace sessions for engineers and field staff. The key audiences for the communication strategy include those involved in road design, construction, maintenance and roadworks. This includes engineers, managers and field staff from VicRoads, local government, and contractors, as well as utility and public transport authorities.

Motorcycle safety levy

Perhaps the greatest tool that VicRoads has had to raise the profile of motorcycle safety issues has been the dedicated funding commitment made possible through the collection of the motorcycle safety levy. The motorcycle safety levy is added to the TAC premium on motorcycles with an engine capacity of 126cc and greater (with some exceptions), and is included with new registrations and registration renewals. Using motorcycle safety levy funding, the Victorian Government commenced a Motorcycle Blackspot Program in 2003 which enabled the development and implementation of motorcycle-specific road engineering treatments at high risk motorcycling locations. For the first time, VicRoads project development teams had access to a dedicated funding source for specific motorcycle on-road projects, and as a result, have developed a better understanding of the needs of motorcyclists and how this can best be reflected through remedial treatments and the use of motorcycle friendly products on road.

With the assistance of levy funding, VicRoads has been able to undertake trials of barrier protection devices consisting of

Rubrail, Stack Cushion and Polybuffer, flexible delineators and motorcycle-friendly furniture such as plastic signs and air-filled plastic posts. Through these trials, there has been an increased awareness of the range of products that are becoming available that are designed specifically for motorcyclist safety. Local manufacturers are beginning to design roadside furniture products specifically with motorcyclists in mind. Over time, it is expected that some of these engineering treatments will be incorporated into future guidelines or specifications, thus raising awareness even more.

Stack cushion

Air-filled plastic posts and sign

Below:
Rub rail to prevent motorcyclists crashing under the barrier

The challenges ahead

With Making Roads Motorcycle Friendly, despite the overall attendances being very good, one of the challenges has been achieving full attendance from contractors and utility providers. Given that contractors and utility providers attend the seminars in their own work time, it will always be difficult to get full attendance from these groups. Despite this, a number of contractors and utility providers have attended seminars. The challenge will be how to get more people from these groups to attend future seminars.

Perhaps the greatest challenge will be in encouraging the adoption of motorcycle safety practices that may have an increased cost associated with them. Certainly when it comes to VicRoads projects and contractors, requirements can be built into the contracts specifying certain practices. However, this is not the case where it is not a VicRoads project. The approach probably needs to be a combination of guidelines, standards and legislative requirements.

One of the other challenges will be to maintain the motivation amongst seminar attendees to continue to deliver the motorcycle safety message and resources to their work colleagues. The involvement of motorcycle riders within the target organisations could be a very effective way to ensure awareness of motorcycle safety issues. Motorcycle riders could be encouraged to attend future seminars and return to their workplace as a 'champion' for the cause.

What evidence is there that this approach is working?

Ultimately, a safer road environment for motorcyclists will result in fewer deaths and serious injuries. Early indications are that the Making Roads Motorcycle Friendly seminars and distribution of materials is being well received by both internal and external recipients. There have been reports of staff external to VicRoads who have been encouraged to watch the Making Roads Motorcycle Friendly DVD by their managers who attended one of the seminars. These staff have then reported a raised awareness of motorcycle safety in their everyday thinking.

There is also evidence of a shift in thinking across VicRoads, in the consideration given to motorcycle safety in all road improvement project proposals, especially through the Safer Roads Infrastructure Program, which is a road improvement program for all road users. There is a process at the proposal review phase where the project development team are asked whether they have considered all potential motorcycle safety issues in the development of their proposal.

One of the biggest events on the motorcycling calendar is the Australian MotoGP event held at Phillip Island each October. Recognising that this event attracts a large volume of motorcycle traffic on the major roads leading to Phillip Island, for the last few years VicRoads has done a drive through inspection of the approach roads with a representative from the Motorcycle Riders' Association. This usually occurs in the month leading up to the event date. The aim of this inspection is to identify potential hazards, which can then be addressed prior to the race weekend. In addition, a motorcycle audit of duplication works on the Bass Hwy en route to Phillip Island was written into the contract to ensure any motorcycle hazards related to the duplication works were identified.

Thinking about motorcycle safety is not a difficult task – often the solutions are simple and the investment in thinking and planning can be life saving. However it is this prompting of all involved in road design, construction, maintenance and roadworks that is required to 'flick the switch' and get people thinking about motorcycle safety. This can then lead to establishing processes to ensure motorcyclists' needs are given consideration and are addressed as appropriate.