



Chief Technical Officer's Meeting

Thursday, 9th August, 2018, @ 10.00 am

**National Heavy Vehicle Regulator's Boardroom,
Level 3 "Gasworks", 76 Skyring Terrace,
Newstead, QLD, 4006**

Truck Industry Council Limited

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**Item 1: Welcome, Competition and Consumer Act Statement, Introductions,
call for apologies:**

TIC's CTO reminds all attendees of their obligations during the course of today's meeting under the Competition and Consumer Act 2010.

Consumer statement: ***All attendees are reminded that there will be no discussion of pricing, stock levels, forward model or product plans, etc, at TIC meetings.***



Item 2: Minutes of CTO Meeting 3rd May 2018 (Canberra):

- **Acceptance**
- **Actions arising from previous meeting Minutes**

2a. NEVDIS In-Service Truck Registration Data:

May 2018 update:

Third Party supplier, BigData, is not responding to calls or emails.

Issue has been elevated to TIC CEO and an alternative source of information is currently being investigated.

August 2018 update:

TIC has entered into discussions with another organisation to gain access to NEVDIS In-Service Truck Registration Data. Further updates will be provided in due course to both TIC CEO's and CTO's.



2b. ARTSA/Peter Hart “cause of truck fires”:

Recap:

Peter Hart (ARTSA) gave a presentation on heavy vehicle truck fires at TLG on 24th May 2017. Following the TLG meeting, both Peter Hart and Rob Perkins approached TIC CTO wishing to address TIC’s Technical Forum. TIC Members approved in principal for Peter Hart to deliver his presentation. Peter was invited to, but was unable to attend, the November 2017 CTO meeting. TIC did not invite Peter Hart to the March or May 2018 CTO meetings due to the already full agenda.

August 2018 update:

TIC will look to inviting Peter Hart to the November 2018 CTO meeting.

2c. OICA “anti-trust” document:

Recap:

OICA is developing an “anti-trust” document that will detail expected behaviour of member companies at its industry meetings in Europe and around the world.



August 2018 update:

The OICA document has been completed and TIC has received a copy. TIC is currently seeking legal advice to determine if any changes are required to the OICA text for use in Australia.

2d. Potential safety issues associated with Kobe Steel products:

Recap:

- At the November 2017 SVSEG meeting, TfNSW asked industry groups if the Kobe Steel announcement (that they had been falsifying material specs) would affect any vehicles in Australia. SVSEG Chair ask industry groups to follow up on this issue. TIC CTO asked TIC Members at March 2018 CTO's meeting if their Brands are affected in any way? At the May CTO's meeting TIC CTO detailed that he had received no response from any TIC Members and again asked for Members to consult with their parent organisations and/or suppliers of steel components, to ask if the Kobe Steel issue affects any of their Australia products.



August 2018 update:

TIC CTO has received only one reply from a single TIC Member. CTO will raise this issue at the August 2018 CEO's meeting.

2e. HFC's Phase Down:

March 2018:

At the 4th December 2017 Department of Environment meeting TIC was told:

- Australia is currently 18 months ahead of its international HFC Phase Down obligations
- Confirmed that pre-charged equipment is NOT subject to the regulated phase down
- Detailed that HFC levy charges of less than \$330 per 6 months will be waived
- Will "review" HFC Phase Down progress for pre-charged equipment and singled out the automotive industry (A/C gasses) as being of "possible concern"
- If the required phase down is not achieved in a particular sector/industry group mandated HFC reductions would be implemented. Such measures would be introduced only after industry consultation
- The first government "review" will occur at the end of 2018



August 2018 update:

TIC has had follow-up meetings with the Department of Environment and they now recognise that heavy vehicles are not covered by either European F Gas or US-EPA rules banning HFC's in motor vehicles. Hence, there is no mandatory move away from R134a refrigerant for heavy vehicles. It is anticipated that the truck aftermarket R134a gas requirements will be supported via recycled R134a and the diminishing amounting imported under the phase down period. Any restriction to be feedback to TIC.

Issue Closed.

2f) DIRDC's future HV safety strategy:

Recap:

At the May 2018 CTO's meeting guest speaker, Steven Hoy from DIRDC, detailed that DIRDC had drafted a new version of the National Road Safety Action Plan 2018-2020 for approval by Ministers at COAG TIC in late May 2018. Heavy Vehicle actions included:

- AEBS for Heavy Vehicles (more in Item 20 today)



- **Reducing the Barriers for Heavy Vehicle Dimensions and Mass. This is based on the TIC lead, industry presentation “Removing Barriers” to SVSEG on 22nd November 2017.**
- New Safety Technologies Information Program (all road vehicles).
- Vulnerable Road Users and Heavy Vehicle Interactions Near Construction Sites (more in Item 18 today)

August 2018 update:

TIC has been informed by DIRDC that COAG TIC voted to accept the draft National Road Safety Action Plan 2018-2020 in late May 2018. DIRDC are now reviewing international HV mass and dimension regulations with a view to developing a case to support the harmonisation of more international regulations governing HV mass and dimension. For details, refer to <http://roadsafety.gov.au/action-plan/2018-2020/>

2g) The Takata SRS Air Bar Recall:

Recap:

- On the 28th Feb 2018 the ACCC made the Takata air bag recall “compulsory”. With all OEM’s given until the December 31st 2020 to complete the recall.



- This is the first ever compulsory automotive recall in Australia.
- Two TIC Members (3 Brands) are affected.
- FCAI have questioned the ACCC about the practicality of the compulsory recall (parts supply, contacting owners of 10-15 year old vehicles, owners being willing to respond to the recall, etc).
- TIC asked if the ACCC force a compulsory recall on non-consumer goods (a Commercial Vehicle)?
- TIC CEO's were urged by TIC management and TIC President at the 14th March 2018 Council meeting to comply with all ACCC requests.
- CEO's of effected Brands stated that they had the situation well in hand and would have their effected trucks rectified well before the December 31st 2020 deadline set by the ACCC.
- The Takata Corporation has been sold and has a new name. This new company name **MUST** be used on all new RVCS forms/applications, otherwise they will be rejected. Takata make other products such as seat belts, ALL their products require the new name on RVCS forms.
- DIRDC informed TIC that they are not receiving monthly recall updates from a number of TIC Members (this applies to all recalls, not just Takata). **TIC urges all Members to comply with the TIC Recall CoP. Under the RVSA, Members will face prosecution for non-supply of information.**



August 2018 update:

The ACCC has in recent weeks again publicly questioned if vehicle OEM's are "doing enough" to replace potentially defective SRS air bags. The FCAI have launched a TV advertising campaign for light vehicles.

The ACCC has also requested ALL OEM's effected by the Takata recall to report back by the END of AUGUST 2018 to the ACCC with an update of rectified vehicles and an updated plan/forecast on the outstanding vehicles. How are affected TIC Members progressing with their Takata recall actions? Are there any difficulties/roadblocks that you are experiencing?

General Vehicle Recalls:

- DIRDC are developing a standardise form to facilitate more consistent feedback. Proposed that this be via a web portal/on-line form. Draft form has been distributed to Members for comment.
- One TIC Member has detailed to TIC that the ACCC had refused to accept "e-mail" applications for new recalls. All new recalls must be completed using an on-line form at the ACCC's website. TIC will update our Recalls CoP to reflect this new requirement.
- The same TIC Member had the ACCC refuse to upload a recall because it was for a Commercial Vehicle that are not covered under the ACCC's legal scope/mandate!



- DIRDC have a Road Vehicles Recalls Working Group meeting in Canberra tomorrow (10th August 2018), TIC and TIC Members will be attending.

2h) Australian Alliance for Energy Productivity – Innovation X-Change and NSW Health Services Zero Emissions announcement:

Recap:

- TIC CTO presented at the recent Australian Alliance for Energy Productivity – Innovation X-Change held at UTS in Sydney.
- TIC's theme was "Improving Heavy Vehicle Energy Productivity Today".
- At the conference NSW Health Services announced that they will move their entire Light and Heavy Vehicle fleet to Zero Emissions by 2025 (and not by carbon trading).
- NSW Health Services are seeking to work with "partners" to achieve this goal.
- If any TIC Members have Zero Emission vehicles now, or coming, and want contact details for the Project Leader for this initiative, contact TIC CTO (in confidence, of course).



August 2018 update:

TIC CTO received no enquiries from TIC Members. TIC CTO did forward the contact details of a couple of TIC Members to NSW Health Services at the request of the Project Leader.

2i) VIC Government's planned Professional Engineers Accreditation Scheme:

Recap:

- TIC CTO was contacted by Rob Perkins (ARTSA) who explained that there was legislation to be presented to the Victorian Parliament for a Professional Engineer's Accreditation Scheme.
- The VIC Scheme would be modelled on a similar scheme introduced in Queensland approximately 5 years ago (stated in the legislation preamble).
- The legislation could be presented to Parliament before the Autumn recess and has the "numbers" to be passed.
- TIC CTO has investigated the Qld Professional Engineer's Accreditation Scheme via discussions with the NHVR, QLD-TMR and HVIA.
- TIC does not plan to oppose the legislation.



- TIC has concluded that TIC Members should be unaffected by this pending Victorian Legislation, but suggests Victorian TIC Members make their own decision whether to become registered if/when the legislation becomes law.

August 2018 update:

The Victorian legislation has now been modified (before submission to parliament for approval) and now exempts Automotive Engineers working in State AVE schemes and engineers working to prescriptive standards such as Federal ADR's. This is the same approach taken in the QLD scheme, where Automotive Engineers are exempt if they are covered via current alternative schemes.

2j) National Heavy Vehicle Write Off Vehicle Register (HV - WOVR) project:

Recap:

- COAG TIC at their May 2017 meeting agreed to develop a National Written-Off Heavy Vehicle Register (WOHVR), similar to the WOVR that exists for light vehicles.
- TfNSW was appointed by COAG TIC to head the project.



- The HV-WOVR will cover all road registered vehicles above 4.5t, trucks, buses, trailers and mobile plant equipment.
- The HV-WOVR project is on track awaiting COAG TIC approval in May 2018.
- Technical Guide (for industry use) has been completed, won't be released until COAG TIC approval.
- TfNSW is preparing to hold an industry workshop in late May 2018 to brief industry stakeholders on how the new HV-WOVR scheme will be implemented in NSW from 1st July 2018 (pending COAG TIC approval in May 2018).

August 2018 update:

COAG TIC approved the HV-WOVR in late May 2018 and approved the HV-WOVR's Expert Reference Group recommendation that a WOVR be developed for vehicles in the 3.5t to 4.5t GVM range. Action on this work is TBA by TfNSW.

TfNSW postponed their HV-WOVR industry workshop from May until 26th June 2018. TIC CTO attended. No serious issues or objections raised, however TIC raised concerns about the definition change to "plant equipment" (the "yellow" machines), now defined in the HV-WOVR as "special purpose trucks", TIC's concerns were supported by the NHVR. The



NHVR also suggested that the WOVR for 3.5t to 4.5t GVM range vehicles needed to be “fast tracked” to avoid the pending “hole” that will exist in the WOVR.

TfNSW stated that due to State legislation development and approval, the HV-WOVR would now be implemented from 1st January 2019, with other States to follow later in 2019.

2k) ANCAP Testing and Star Ratings for Heavy Vehicles:

Recap:

Raised at the 19th April 2018 SVSEG meeting in Canberra that TIC attended.

ANCAP were investigating the possibility of extending their testing and safety star rating system to trucks. Detailed at SVSEG by Mark Tyrrell (ANCAP Technical Director) as likely to be non-destructive performance testing and rating of HV safety systems such as AEBS, LKAS, etc.

August 2018 update:

James Goodwin (ANCAP Chief Executive) was quoted as saying (TransportTalk-NZ, June 2018) that ANCAP were investigating crash statistics to determine if there was evidence that the driver and/or passengers in trucks above 3.5t GVM were suffering serious or life



threatening injuries and if crash testing of trucks in the 3.5t to 4.5t GVM range should be considered.

TIC thoughts (**no discussion outside TIC please**): ANCAP are struggling to find new light vehicle opportunities, particularly now that Euro and US NCAP and ANCAP are now aligned, hence ANCAP may be looking at how to justify their existence moving forward. The TranTalk-NZ article was probably a PR exercise by ANCAP. ANCAP need to justify their testing and funding (which primarily comes from the States) on actual crash evidence. TIC doubts that crash data is going to show significant truck occupant injuries, to the point that would justify crash testing of trucks (international data does not support this path, hence no international NCAP truck crash test).

However, TIC CTO attended the TfNSW Stay Safe Heavy Vehicle Strategy Workshop on 25th July 2018 where TfNSW detailed that over the past 2 years they had tracked an 80% increase in deaths and serious injuries from vehicles in the 3.5t to 4.5t GVM range involved in two vehicle accidents. When questioned by TIC CTO if these deaths/injuries were the occupants of the 3.5t to 4.5t GVM vehicle, or the “other” vehicle, or both vehicles, TfNSW said they had not analyzed the data in that much detail as yet. However, this segment’s



increase was “by far the most concerning trend” in NSW vehicle crashes and TfNSW and RMS were investigating.

TIC has approached TfNSW for more information regarding these 3.5t to 4.5t GVM vehicle crashes.

TIC is investigating with ANCAP.

2l) DIRDC Structural and Personal Changes:

Recap:

Raised at the 19th April 2018 SVSEG meeting in Canberra that TIC attended.

DIRDC Staff Changes included:

- New department head for Deputy Secretary Transport, Pip Spence replaces Mike Murdak.
- New section head for Surface Transport Policy, Alex Foulds replaces Judi Zielke.
- Donna Wieland has moved to a new, non-transport, role within DIRDC and has been replaced in Land Transport Policy and Safety by Stephanie Werner (safety, C-ITS and environmental).

August 2018 update:

The head of VSS Branch Sharon Nyakuengama has stepped sideways from the role of VSS Administrator and will now head up the development of the Road Vehicles Standards Act



(RVSA) and its introduction. Sue Tucker is the new VSS Administrator. The long term plan is for Sharon to resume the role of VSS Administrator once the RVSA has been introduced in approximately 18 months.

2m) Green Truck Rating Scheme:

Recap:

- Mov3ment P/L approached TIC to gauge the interest in developing an environmental “star rating system” for Heavy Vehicles. After a presentation to TIC CEO’s in 2017 it was agreed to explore the concept. The rating system would be a combination of noxious emission standard and “nominal” fuel efficiency. There is NO intention to have any test regime.
- At the May 2018 CTO’s meeting TIC CTO asked if any Members would like to take part in a trial of the rating system. TIC CTO Members unanimously agreed that either all TIC members would have to take part in the “pilot/trial, or no TIC member should be involved in this rating system.

August 2018 update:

No responses of interest were received from any TIC Members.



Due to the lack of interest from all TIC Members, TIC will take not take an active role in this project, however TIC will keep a watching brief.

Other Actions Arising:

Will be dealt with during the course of today's meeting.

Item 3: SVSEG and TLG Update:

SVSEG:

Last SVSEG meeting was held on the 19th April 2018 in Canberra, TIC was represented by Mark H and Chris L. Update given at May 2018 CTO meeting in Canberra.

Next SVSEG meeting is proposed for November 2018 (date TBC).

TIC to update TIC Members at the November 2018 CTO meeting in Melbourne.

TLG:

Last TLG meeting was held on the 2nd May 2018 in Brisbane. TIC was represented by Chris L. Update given at May 2018 CTO meeting in Canberra.



Next TLG meeting is proposed to be held after SVSEG in November/December 2018 (date TBC).

TIC is working on a number of Discussion Papers that will be presented at this next TLG meeting, these are:

- Twin steer axle separation to be increase beyond 2m
- Retractable axles lift points/Rear overhang issues
- Higher available axle rating for Ultra-Wide Load Base tyres

TIC to update TIC Members at the November 2018 or March 2019 CTO meeting.

Item 4: National Heavy Vehicle Regulator (NHVR) Update:
NHVR's Technical Working Group:

Recap:

TIC (Mark H and Chris L) meet with the NHVR on 9th April 2018 to review a range of topics. An update given to Members at the May 2018 CTO meeting in Canberra.



August 2018 update:

TIC (Mark H and Chris L) met with the NHVR on 8th August 2018.

NHVR are developing a new set of Terms of Reference for the TWG which will include 2 meetings each year 3-4 weeks before TLG (as requested by TIC). Another meeting will also be held 3-4 weeks before the NTC VS-MAG meeting each year. Other meetings would be scheduled on an “as required basis”. These 3 meetings will allow HV in-service issues to be discussed and if there are ADR implications, these can be taken to the subsequent TLG and/or VS-MAG meetings.

Item 5: National Transport Commission’s Autonomous Vehicle Safety Assurance Regulation RIS, update and discussion:

Recap:

- The State and Territory Ministers goal is to have “end-to-end regulation in place by 2020 to support the safe, commercial deployment and operation of Automated Vehicles (AV) at all levels of automation” and the NTC is working to deliver this request.



- The NTC has to date released five guideline papers that support the introduction of Autonomous Vehicles and/or AV Trials in Australia
- The NTC released their “Safety Assurance for Automated Vehicles Regulation Impact Statement” in April 2018 which detailed four regulatory reform options:
 - Option 1: Current approach, uses the existing regulatory processes to manage the safety of automated vehicles.
 - Option 2: Administrative safety assurance system (SAS); introduces a SAS using administrative arrangements under the existing regulation (ADR’s). It requires an Automated Driving System Entity (ADSE) to self-certify against principles-based safety criteria where there is a “short fall” in AV regulations.
 - Option 3: Legislative safety assurance system; introduces a SAS with a (new) dedicated national agency for automated vehicle safety, with specific offences and compliance and enforcement tools.
 - Option 4: Legislative safety assurance system with a primary safety duty; in addition to the elements of Option 3, includes a primary safety duty (laws) on ADSE’s.
- Submissions to the RIS close on 9th July 2018.



August 2018 update:

- The NTC's Autonomous Vehicle Safety Assurance Regulation RIS is not a typical government RIS, in that it makes unsubstantiated claims and assumptions, as well as not providing a cost-to-benefit analysis of each of the four options. The document was in reality a Discussion Paper and not a RIS.
- TIC worked closely with the FCAI in developing a response to the SAS RIS.
- The whole document was closely aligned and based on the voluntary (non-legislative) autonomous vehicle safety assurance system that has been deployed by various States in the USA. The key recommendations do not align with the direction that European regulators are taking for the control of autonomous vehicles. This is a key failing of the NTC's document, given that Australia is bound by international agreements to align with UN-ECE vehicle regulations.
- TIC lodged a submission by the due date, that submission included:
 - TIC's view on unsubstantiated claims, assumptions and errors of fact that were in the NTC's document. Focusing on AV technology and its likely introduction timeline.



- The NTC's recommendations that create non-alignment with UN-ECE driving rules and AV regulations.
- The lack of "reality" shown in attempting to "lead the world" in regulation of AV's, AV Systems and AV System Entities, by 2020.
- Support for a modified version of Option 2. An administrative safety assurance system (SAS); introducing a SAS using administrative arrangements under existing regulation (ADR's). However, that does not require an Automated Driving System Entity (ADSE) to self-certify against principles-based safety criteria. The human driver would be responsible for control of an AV, and/or AV systems/functions, if these systems were "outside" of existing regulations (UN-ECE regulations that would be adopted as "if fitted" by our ADR process).
- The introduction of regulation based on Options 3 or 4, would greatly impact on a Vehicle OEM's ability to introduce AV systems, features and technology in the Australian market due to the unique and legally binding laws these Options would create. The legal risks would simply be too great.
- Due to the pace of developing AV technologies, the suitability of introducing the proposed modified version of Option 2 should be reassessed in 2-3 years and that any new AV SAS and/or ADSE regulation/s should reviewed every 2-3 years.



- TIC, the FCAI and other industry organisations are considering a target lobbying campaign aimed at the COAG TIC Ministers who will vote on this piece of regulatory reform in November 2018.

Item 6: DIRDC's ADR Deregulation Program and Preparation for Light Vehicle IWVTA, update and discussion:

Recap:

As detailed at the May 2018 CTO meeting in Canberra, DIRDC are reviewing a number of current ADR's, as well as developing 6 new ADR's, primarily to allow for the Australian adoption/introduction of the European developed IWVTA system for Light Vehicles.

August 2018 update:

TIC CTO circulated a summary of proposed changes to all TIC Members for the following ADR's on 18th June 2018, requesting feedback by 28th June 2018:

- Draft ADR4/06 – Seatbelts
- Draft ADR 5/06 – Anchorages for seatbelts
- Draft ADR 34/02 and 03 – Child Restraint Anchorages

Essentially Members were not affected unless they:



1. Had trucks fitted with passenger side SRS Air Bags – Fitment of a WARNING label will be required to warn of the dangers of fitting a rear facing child seat, for NEW model IPA's from 1st July 2019. Existing IPA's are unaffected.
2. Are using the Alternative USA (FMVSS 209) regulation to comply seatbelts, where a slight increase in stringency applies to some requirements.

No negative feedback was received from any TIC Member. TIC informed DIRDC that TIC supports the planned revisions.

TIC TO circulated a summary of new ADR's and proposed changes to existing ADR's, to all TIC Members for the following ADR's, on 9th July 2018, requesting feedback as soon as possible:

- Draft ADR 42/05 – General Safety Requirements
 - DIRDC changes include, removal of tyre bulge from overall width requirement, minor text revisions to improve readability and the inclusion of some FMVSS regulations as acceptable alternatives.
 - TIC request to revise maximum tyre pressure limit (to align with UN-ECE requirements) and to revise trailer socket wiring (to mandate Reverse Signal pin).



- Draft ADR 43/04 – Vehicle Dimensions
 - DIRDC changes include, maximum turning circle for NB1 vehicles reduced from 25m to 24m (to align with UN-ECE requirements).
- Draft ADR 90/0x – (Self) Steering Systems
 - NEW ADR to allow for automatic and autonomous steering systems and functions – directly aligned with UN-ECE R79/0x.
- Draft ADR 91/00 – Rear Underrun Impact Protection (Trailer ADR, not Truck related)
- Draft ADR 92/00 – External Projections
 - NEW ADR, previous requirements removed from ADR42 and placed in ADR92, also allows UN-ECE R26/02 as an alternative.
- Draft ADR 93/00 – Forward Field of View
 - NEW ADR, previous requirements removed from ADR42 and placed in ADR93, also allows UN-ECE R125/00 and 01 as alternatives.
- Draft ADR 94/00 – Audible Warning
 - NEW ADR, previous requirements removed from ADR42 and placed in ADR94, also allows UN-ECE R28/00 as an alternative.
- Draft ADR 95/00 – Commercial Vehicle Tyres



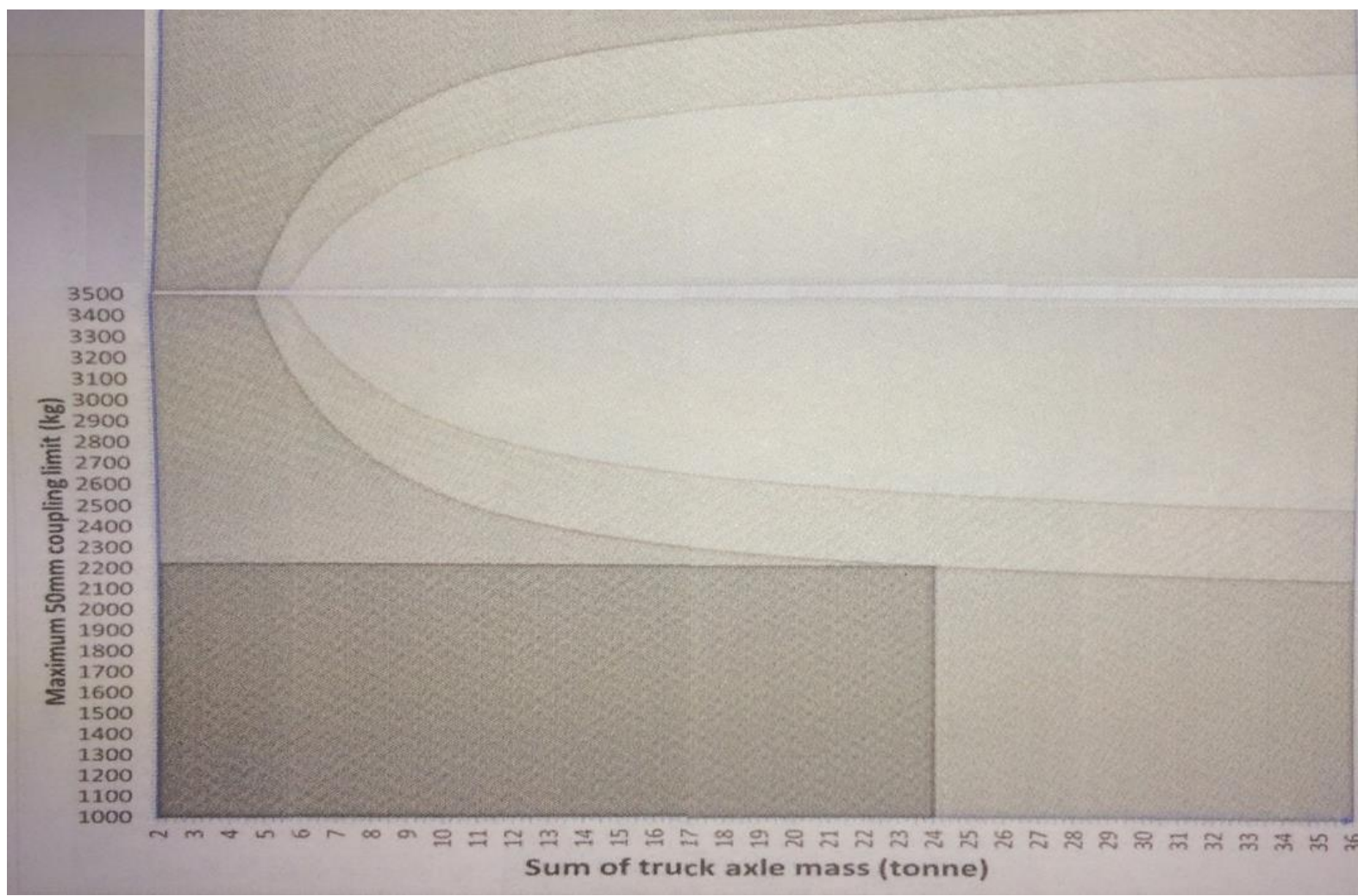
- NEW ADR, directly aligned with UN-ECE R54/00, also allows FMVSS 119, JIS D4230:1998 and AS/NZS 2230:1999 as alternative standards.

No negative feedback has been received from any TIC Member. However, TIC has not yet informed DIRDC that TIC supports the planned revisions (though the due date for responses passed 6 days ago).

Item 7: NHVR's 50mm Tow Coupling Vehicle Standards Guide (VSG), update and discussion:

Recap:

- The NHVR has developed the 50mm Tow Coupling Vehicle Standards Guide - 16 (VSG), without industry consultation to our knowledge.
- TIC CTO circulated the VSG to TIC Members on 6th September 2017.
- A number of TIC Members contact the TIC CTO questioning the validity of the NHVR's "D-value" de-rating approach, suggesting that it was not correct.





Recap - TIC suggested actions (immediate):

- TIC CTO strongly advises that TIC Members who sell (or fit) a 50mm towing system for trucks with a GVM above 5,000kg provide suitable advice to their customers, dealers, etc that references VSG-16.
- Drivers/operators should adhere to the towing capacities detailed in VSG-16 for ALL vehicles fitted with a 50mm towing system.
- If greater towing capacity is required than that allowed in VSG-16, vehicle owners should consider upgrading their towing systems with a tow coupling system with a suitable rating. Such modifications MUST be approved by an AVE and suitably “Mod Plated” using VSB6 guidelines.

Recap - Future possible actions (TIC/TIC Members):

- TIC CTO has discussed with the NHVR, the possibility of tests being conducted by a suitable test group, that would validate, or disprove, the AS/NHVR’s “D-value” de-rating approach used in VSG-16.
- TIC worked with Bisitechnics to develop a test schedule and costing (\$30k - \$35k + GST).
- This was presented to TIC Members and discussed at the May 2018 CTO meeting in Canberra
- TIC Members expressed concern at the high test cost and no guarantee that the NHVR would accept the testing if it were to disprove the “D-value” de-rating approach.



- TIC Members requested that TIC investigate alternative strategies and discuss the issue further with industry, in particular HVIA with regard to sharing test costs (this is a trailer issue as well).

August 2018 update:

TIC is working with HVIA to review possible testing, share efforts and costs. An approach has been made (April 2018) to Horizon Global parent of Hayman Reese to quote on testing tow balls:

1. Dynamic FEA analysis of a tow ball to determine the likely maximum D value that may be obtained on an AS4177 complaint 50mm tow ball. Dynamic analysis should follow ADR 62 Clause 12 requirements.
2. Confirmation testing to ADR 62 Clause 12 of:
 - A Hayman Reese 50 mm tow ball (specifically the tow ball under any of your brands which is the most popular).
 - A Toyota Genuine Accessories 50mm tow ball – seen to be a superior ball.



Item 8: NHVR's Bull Bar Vehicle Standards Guide (VSG-20), update & discussion:

Recap:

- Multiple issues of non-compliance to ADR requirements (particularly Dipped Beam headlight illumination angles). The NHVR announced a tentative 9-month transition period until 1st June 2018 for ALL manufactures to have compliant bull bar designs. The date is flexible and is based on support/feedback from the bull bar manufacturers.
- In-service bull bars will be grandfathered.
- Truck OEM versus DIRDC understanding of the “apparent surface” and measurement of the geometric requirements of a light differs. DIRDC’s Interpretation is based on VSB9 “Installation of lights on road vehicles” originally published July 1996. OEM’s believe that this document is no longer relevant due to new light technologies.
- VSG-20 was expected to be issued end February 2018 (TIC asked that the release be held over until all issues raised by industry are effectively resolved) with an effectiveness date 12 months after issue of VSG. The NHVR has agreed to hold the release of VSG-20.

TIC (Mark H and Chris L) met with the NHVR on Monday 9th April 2018.

The NHVR are continuing to work through “some issues” with DIRDC, however we know:



- ALL Bull Bars, OEM and Aftermarket, will need to comply with ADR13 visibility requirements from a particular date of manufacture.
- The NHVR can request design details/audit the Truck OEM, or Aftermarket bull bar manufacturer, over the design of the bull bar and the bars compliance to all ADR's, this would include test evidence.
- The NHVR is likely to insist that the date of manufacture be stamped on all new Bull Bars (OEM and Aftermarket).
- The NHVR requested TIC develop a Discussion Paper (May 2018) that details a potential RVCS/ADR certification process for Bull Bars that use additional “fill-in” lamps that would “replace” the Dipped Beam light cut/obscured by part/s of a Bull Bar. DIRDC has raised the issue, with the NHVR, that ADR13 specifically restricts the number of Dipped Beam lights on a vehicle to a total of two. Do any TIC Members want to assist with this project?

August 2018 update:

TIC received no offers for assistance to work on the development of the Discussion Paper! TIC outlined to the NHVR during the 8th August 2018 meeting our concept of how to handle certification of ADR13 (dipped beam) light issues for Bull Bars, both for truck OEM's and



aftermarket Bull Bar manufacturers. The NHVR raised some issues that DIRDC had raised regarding CRN Approvals. TIC now will need to have further discussions with DIRDC to find a workable solution. Work in progress.

Item 9: TIC Codes of Practice revisions, update and discussion:

Please be reminded that TIC CoP's are officially and/or legally binding documents for TIC Members

a) Field of View (FoV)

Recap:

- Current situation is deemed by the authorities to be unsatisfactory
- TIC's current FoV Code is not proving not to be effective
- Vulnerable Road Users groups want a clearer enforceable standard
- VicRoads is updating their FoV guide for light vehicles. It will also highlight the issue of internal cab visual obstructions.
- Circulated to CTO's for approved.
Feedback received and included in the draft for discussion.



March 2018 Update:

Update and reissued for TIC CTOs approval.

May 2018 Update:

Feedback was received from a range of members.

The CoP was not unanimously supported. Document has been updated.

Please refer to the document for discussion around two options listed in Section 5.

August 2018 update:

Third version of Section 5 was added and circulated to CTO's for comment.

Limited feedback with 3 responses representing 5 brands, but all were supportive of V3 of the Section 5. Late member feedback received to be reviewed and included, if appropriate, before the finalised version issued to brand CTO's for final approval.

b) Electromagnetic Compatibility (EMC)

Recap:

The TIC's EMCs CoP is being updated to reflect multiple recent updates to the European Regulations on which it is based

Work has been undertaken in collaboration with FCAI



Note: TIC members complying with the Code are exempt from having their compliance documentation randomly audited by ACMA and all elements labelled, however, ACMA can required TIC members to provide compliance documents in the event a product is suspected of being non-compliant and penalties can be applied.

May 2018 update:

Note ECE R10 Rel 5 effective date is 1/June/16 for new models to cover electric vehicles. Feedback from a TIC Member is that the effective date should be at least 12 months after the release of the updated TIC CoP.

Review of timing is required, then present to TIC Members and on Member acceptance be presented to ACMA for their approval.

August 2018 update:

Only change to the draft was to note the effective date for selected ECE standards to be 12 months after the release of the CoP.

A meeting between AMCA TIC (Chris L) and the FCAI (James Hurnall) was held on the 7th of August 2018, regarding ACMA's approval of the update CoP before putting it to CTO's for final approval.



ACMA is expected to accept the CoP. Draft to be reviewed and provided to ACMA. Refer to ACMA meeting report for details.

c) Vehicle Recalls

May 2018 update:

- The TIC Vehicle Recalls CoP is being updated to reflect the establishment of the NHVR and changes due to the MVSA review/RVSA implementation.
- Please email NHVR at VehicleStandards@NHVR.Gov.AU as well as WA/NT transport department when a recall is ready for execution, until the CoP is updated.
- DIRDC must be advised as soon as an OEM establishes that there is a need for a recall.
- DIRDC believe a CoP will still be required under RVSA. RVSA legislation details penalties but not the steps to undertake either a voluntary or mandatory recall.
- Draft to be issued before August 2018 CTO meeting, for review/discussion at that CTO meeting.
- DIRDC comment they are not getting regular monthly updates on recalls underway. TIC members to ensure regular reporting of progress be provided to the DIRDC.



August 2018 update:

Feedback has been received from DIRDC regarding the update draft CoP, which also is designed to cover RVSA and has been incorporated into the draft.

DIRDC has organised a Recalls Forum to facilitate the transition from the ACL to RVSA with the initial meeting being held in Canberra on the 10th August.

TIC representatives are limited to 3 with the initial members being Chris Loose, Barry Noble and Steven Ghaly. An internal TIC working group to be formed as required.

CTO feedback has been requested regarding a DRIDC standardised “feedback”. FCAI members want more detail add to support their case of “going above and beyond”. Refer to TIC update #28 for further details.

Item 10: TIC Technical Guides (TG), update and discussion:

TG's are proposed to be a new class of TIC document. They are designed to be informational, provide recommendations and be widely distributed, however they are not legally binding for any parties including TIC Members. TG's under development are:



a) Impact of Vehicle Modifications on ABS/ESC Function and Certification

This TG was developed to fill a knowledge gap within the industry. VSB #6 Heavy Vehicle Modifications Guide provides little guidance regarding modifying a vehicle where either ABS or a stability control system has been fitted. Refer to draft TG details. TIC is currently waiting for feedback from Wabco and Knorr plus member feedback. Next edition will take into account DRIDC's Circular 35_6-2-1.

b) Trailer Wiring for Reverse Light/Alarm

Developed from the original Voluntary CoP drafted with HVIA, now a standalone TG to support the fitment of wiring between a towing unit and following trailer/s that support the fitment of reversing lights and/or alarms to trailer/s to protect Vulnerable Road Users. Refer to draft TG for details.



From 12.00 noon:

Team Leaders and Department Managers from the National Heavy Vehicle Regulator (NHVR) will provide updates on the following topics/issues, in sessions before and after lunch (listed below in the order that they were presented at the meeting and NOT Agenda order):

Item 11: Guest Speaker: Peter Austin – Partially Completed Vehicles Notice:

The NHVR released their Partially Completed Vehicles (PCV) Notice in mid July after some consultation with TIC Members (2 in QLD only) and TIC. The Notice was released with specific concerns raised by TIC not having been addressed. The NHVR admitted that there was a disconnect between the information that they received from jurisdictions and what actually happens when currently a PCV is driven on a public road. The NHVR acknowledged that more work needed to be done and that the PCV Notice would have to be revised. NHVR and TIC have agreed to work together to find a practical solution to the outstanding issues raised by TIC. TIC has given an undertaking to develop a PCV guide that will complement the NHVR's PCV Notice and PCV Users Guide (both documents to be revised by the NHVR in due course). TIC's guide will



detail in practical terms the differences between a PCV and an ADR compliant vehicle, including temporary measures that can be applied to a PCV to make it an ADR compliant vehicle for longer distance (greater than 100km) on road movements.

Item 15: Guest Speaker: Greg Fill – Safety Management Systems (CoR):

a) Chain of Responsibility (CoR):

Promotional and an extensive educational program has been created. Safety Management Systems (SMS) approach to business pictorially represented as a 4-leaf clover of Safety Policy & Documentation, Safety Risk Management, Safety Assurance and Safety Promotion and Training. Focus is the small fleets and owner operators as most larger fleets have already elements in place. NHVR has developed training material and is holding information sessions. Refer to:

<https://www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility>



b) HV Confidential Reporting Line:

Utilising the Crime Stoppers backend, NHVR have established a confidential reporting line. Refer to: www.nhvr.gov.au/hvcrl_for_details/

Item 12: Guest Speaker: Peter Austin - The VSB6 Review Update, including:

- Tipper Bodies
- Tow Trucks
- Wheels and Tyres
- ROPS and FOPS

TIC Recap:

VSB6-V3 was implemented on the 1st September 2017 in all States and Territories (including WA and NT) and has moved from the NTC across to the NHVR for future management and maintenance

a) Tipper Bodies – Chris L

Recap:

Issues with compliance with AS1418.8 “emergency stops” by many Australian manufacturers. Originally brought to the attention of the NHVR by Phil Webb at PACCAR on 2nd September 2017, one month before the implementation date of VSB6-V3. On 5th October 2017 the NHVR announced a 6-month transition period



(until 1st March 2018) where tippers do not have to comply with the “emergency stop” requirements of AS1418.8.

TIC working group to be formed with all interested TIC members (suggestions below).

NHVR TWG to be formed. Facilitated by HVIA with 1 x light truck and 1 x heavy truck TIC Member representatives and a TIC representative

Proposed - Full TIC Working Group

Paul Lee - Isuzu, also the TIC rep on the NHVR Working Group

Phil Webb - PACCAR, also the TIC rep on the NHVR Working Group

Chris Loose – TIC, also the TIC rep on the NHVR Working Group

Lawrence Lee - Scania

Romesh Rodrigo - Fuso

Neil Carey - UD

Barry Noble – Hino

Adrian Wright - Navistar

May 2018 update:

HVIA has formally agreed with NHVR to coordinate the writing of a new VSB6 code covering tippers. The HVIA’s Chief Technical Officer has had a preliminary planning meeting with the NHVR and both have broadly agreed on the process.

Namely, HVIA to form a working group of members to oversee the preparation of the draft code, chaired by HVIA CTO.



The draft code to be submitted to a Sub Group of the existing VSB 6 Industry Working Group, chaired by HVIA CTO.

Final Draft to be submitted to full VSB6 Industry Working Group (VSB6 IRG), chaired by NHVR.

Once agreed by VSB6 IRG, the document will follow the usual process (public comment period, comment review, and then issue of document by NHVR).

It is expected that the first teleconference meeting of the HVIA working group will be held in the fortnight after ComVec.

NHVR August 2018 Update (at CTO meeting):

HVIA working group has had 2 meetings via phone hook-ups. This group includes TIC members – Paccar, Isuzu, Hino, Fuso, Volvo. Meeting notes circulated to CTO's. The NHVR have very little input into this review at this point in time, however when completed, NHVR will review and VSB6 working group before going out for public comment.

b) Tow Trucks – Chris L

Recap:

Draft VSB section was sent to TIC CTO's on 26th February 2018

NHVR have requested feedback within 2 weeks

The specific licenced tow truck requirements have been removed from VSB as they are covered by the State and Territory governments requirements. This removes the need for non-licensed tow/tilt trucks to be burdened with the same requirements and costs as emergency licenced tow/tilt trucks



May 2018 update:

No responses received.....

NHVR August 2018 Update (at CTO meeting):

Draft has generally been well received with only concern raised regarding the potential of some Class 4 units (large) tow trucks unloading the steering when in use. The NHVR is currently reviewing this issue using weight distribution analysis and some field review. The NHVR has not ruled out field testing to determine if a minimum load should be specified in VSB6 for a HV tow truck when loaded. NHVR is developing guidance to be included into VSB6.

c) Tilt Trays – Chris L

May 2018 update:

Tilt Tray review to proceed in conjunction with tow trucks/tippers.

August 2018 update:

This item to be combined item with VSB6 Tipper review. Item Closed.

d) Wheels and Tyres – Mark H

Recap:

Draft VSB section was sent to TIC CTO's on 26th February 2018

NHVR have requested feedback within 2 weeks



Primarily looking at fitting Wide Single wheels and tyres in place of dual wheels and tyres on 4x4 trucks. Will also look at Super Single wheel and tyre fitment on trucks and trailers (to replace dual wheel and tyre combinations).

Any interested TIC Members to assist Mark H in this Review Group?

TIC Member responses by 5th March 2018 (to Mark H).

May 2018 update:

No responses received.....

Mark H. reviewed the draft and provided extensive feedback back the NHVR, primarily around changing wheel offsets from OEM design standard and the induced wheel bearing and wheel end loads that this offset loading produces.

Also, the requirement to retest ADR35 Brakes was not stated in the Mod. Code where tyre diameters change beyond OEM limits.

The Mod. Code Draft does state that it is NOT applicable to *“conversion of dual wheels to single wheels where directly prohibited by the vehicle manufacturer”*.

Updated Draft was to be circulated to industry for review and comment before the end of April 2018, this has not yet happened.

NHVR August 2018 Update (at CTO meeting):

Draft of VSB6 D3 – Fitting of non-standard wheel components and checklist was received June 2018 and TIC CTO provided extensive feedback.



Draft finalised and put out for public comment in late July 2018. Feedback to close mid-August 2018. NHVR has requested that industry should respond to the NHVR's recommendation that D3 modifications can only be undertaken by a qualified engineer and not a trade qualified person. TIC fully supports this recommendation.

e) ROPS and FOPS – Mark H

Recap:

Draft VSB section was developed by CVIAA in 2017 and attracted some industry criticism at the time, to be reviewed in 2018.

NHVR August 2018 Update (at CTO meeting):

NHVR advised TIC Members that the ROPS and FOPS section will be split into two parts, a Design Code that can only be certified by an Approved Engineer and a Fitment Code that can be certified by an Approved Technician. This is the same approach that was taken by the NHVR for FUPS in VSB6.

Item 14: Buffet Lunch served from 12:30pm (30 minutes)



From 1.00pm:

Item 14: Guest Speaker: Jose Arredondo – NHVR’s National Harmonisation of HV Regulations Project: (Notices for: Road train, B-Double and Triple, AB-Triple, HML, etc).

Jose detailed that the NHVR had received road access approval from 91% of the road agencies in Australia for the proposed National B-Double Notice, this was a good result and the NHVR was confident of receiving 100% support in the future (though no timeline was specified).

The progress on the other Notices was far less advanced with various State road agencies not willing to agree to the Notice requirements developed by the NHVR. In all cases, these State agencies were not willing to reduce/lower their current standards/requirements to levels that were currently in place in other States/Territories (for example NSW-RTA are insisting on IAP for HML combinations, this is not a requirement in other States). The NHVR has effectively given up trying to negotiate a path forward with these States. Instead, the NHVR will take the specific issues/examples back to COAG TIC in November 2018 and ask if the States and



Territories wish to continue with the national harmonisation of HV regulations. If so, then the NHVR will be asking for the States and Territory Transport Ministers to override the objections/additional requirements of their road agencies. This will be a very interesting “test” of COAG TIC’s commitment to real and effective national harmonisation of HV regulations!

Item 13: Guest Speaker: Peter Austin – VSG 22 (Trailer Types) and VSG 23 (B-Double Car Carriers):

NHVR detailed that these VSG’s were developed to clear up any in-service confusion that existed between trailer types (VSG22) referred to in various laws and Notices and the ability to carry a vehicle on the prime mover of a 26m B-Double car carriers (previously prohibited under the 26m B-Double Notice), VSG23.

For further details and copies of these (and other) VSG’s, please refer to the NHVR’s website: <https://www.nhvr.gov.au/safety-accreditation-compliance/vehicle-standards-and-modifications/vehicle-standards-guides>



Item 17: Guest Speaker: Peter Austin – NHVR’s HV Voluntary Advanced Safety Package:

TIC Background:

NHVR is proposing a Safety Initiative that would allow higher steer axle masses (7.0t, possibly 7.2t) and 2.55m width for trucks with addition safety features. This is a result of State and Territory pressure to find solutions to the Heavy Vehicle Road toll and the results of the recent NHVR’s Truck OEM Safety Feature Survey.

Features are likely to include:

+375 tyres, Cab Strength, Stability Control, AEBS, Euro VI and possibly LKAS or LDW. This would be a “deal” to be done between the NHVR and the States and Territories (similar to the TIC deal for 6.5t steer axle capacity with ADR80-02/Cab Strength/FUPS).

TIC is pushing for:

315 tyres (probably not too likely), no LKAS, or LDW (minimal safety benefit based on international research and lack of line markings in Australia) and a 1.0t rear axle mass increase (10.0t – single rear axle and 17.5t tandem rear axle set), in addition to a 0.5t steer mass increase.

NHVR August 2018 Update (at CTO meeting):

NHVR detailed that most of the advanced safety features that they were looking at introducing in the voluntary advanced safety feature scheme were either standard or options on Euro VI (or equivalent models) and that they felt that Euro VI and equivalents would be a key requirement in their plans. There was also the added benefit of reducing PM by 50% over current ADR80/03



trucks and that this was a worthwhile health benefit. The NHVR recognised that the fitment of 385 tyres on the steer axle was an issue for many truck OEM's and they were looking at the possibility of 315 steer tyres. The NHVR noted that the biggest issue for the use of 315 tyres was the lack of pavement load/damage testing/data that existed (the 315 tyre has never been tested). The NHVR was discussing this issue with ARRB and TIC to find a way forward including the funding that would be necessary for testing. The NHVR indicated that in addition to ADR80/04 emissions, Cab Strength, Stability Control and AEBS would likely form the basis of the advanced safety feature package. The NHVR was unsure if LKAS and/or LDW would form part of the package, as the cost versus safety benefit was not as worthwhile as the other technologies explored. The NHVR will continue their discussions with TIC on this issue, Sal Petrocchio will be addressing the TIC CEO's at the TIC AGM in mid August 2018.

TIC CTO comment, the NHVR made no mention of additional rear axle mass. TIC CTO will raise this with Peter Austin and Sal Petrocchio in our next discussions on this issue.

Item 18: VIC Roads, NSW RMS and QLD-TMR Vulnerable Road User (VRU) Groups (heavy vehicle safety features and systems beyond statutory regulations), Update and Discussion:



Recap:

- Melbourne VRU group is proposing a follow-up meeting to finalise the project
- Cross Yarra Project (CYP) included only 4 items directly from London's CLOCS scheme for truck standards:
 - Warning signage eg for VRU
 - Side under-run protection eg UN ECE R73 as far as practically
 - Blind spot minimisation eg Ft, side and Rr minimised as far as practically
 - Vehicle manoeuvring warnings eg audible warning on left turning units

Recap - Next Steps Proposal:

- TIC to develop a practicable stepped approach to lift the minimum vehicle specification standards of vehicles in government contracts
- TIC to look at the development of Technical Guidelines for safety features not covered by ADR's, for example:
 - Side under-run
 - Forward and rearward blind spot mitigation systems



May 2018 update:

CLOCS (London – UK) requirements are:

1. Side Under Run Protection, if practical! (Refer to ATA TAP)
2. Blind spot elimination or minimisation at least one of the following:
 - a. Class V mirrors on bonneted vehicles and Class V & VI mirrors on Cab Over vehicles.
 - b. Camera.
 - c. Sensor/s and associated driver alert.
3. Audible means of warning road users of left-turn manoeuvre
Audible warning devices to be fitted with a manual on/off switch or reset button for circumstances, such as working between hours 23.00 and 07.00, where it may be appropriate for the device to be deactivated.
4. Prominent signage on the vehicle warning road users of the dangers of manoeuvring past the inside of the vehicle

Key outstanding issue in Australia is the gap between the truck and dog trailer, which London don't have any experience of. Pedestrians climbed across drawbars, pedestrians walk and cyclists ride into the space, etc. If any members have a suggestion, please pass on your thoughts for managing this issue.



August 2018 Update:

TMR-QLD:

- TMR-QLD have now started a heavy vehicle Vulnerable Road User (VRU) Group.
- Initial comments from TMR are that they are considering a scheme that parallel the London CLOCS scheme, this is not supported by TIC.
- TIC met with TMR on 8th August 2018 to discuss VRU issues.
- TMR and TIC have agreed to work together on the development of a HV VRU scheme in conjunction with HVIA, Operator Organisations and the Brisbane Cross City Tunnel Project Group.

TfNSW:

- TfNSW are investigating a range of features to be implement in 2019. TIC TO is working with Dan Levey and his team at TfNSW supplying technical input and recommendations.



VicRoads:

- VicRoads have based their requirement purely on the CLOCS's scheme, despite recommendations made by TIC TO that some CLOCS requirements are not practical for implementation in Australia.
- VicRoads have not yet found a local supplier for an audible Left Turn Indicator.
- TIC has been highlighting concerns such as a difference in the starting point of the fleet (differing age and safety features) and also need for a mandatory reversing alarm.

Item 19: Road Vehicle Standards Act (RVSA):

Recap:

- A Senate Review of the RVSA was announced on 3rd April 2018 with submissions due on 17th April 2018 (10 working days).
- No public hearings will be held.
- TIC lodged a submission focusing on:
 - Australian businesses have a world leading choice of truck Brands and Models via the Type Approval process, no need for Concessional imported trucks
 - Volume restrictions (caps) MUST remain on all Concessional Import Schemes



- Heavy Vehicles MUST be “fit for purpose” for Australia operating conditions
 - LHD SEV’s criteria should exclude all trucks, failing this, all trucks above 8.0t GVM
 - RAW’s and SEV’s organisations MUST be Australian entities/registered companies
 - The RVSA should lead to world class safety and environmental benefits for road users and more broadly all Australians.
- Tony McMullan and Mark H subsequently spoke to four of the five Senate Review committee members to put forward TIC’s case, Senator Barry O’Sullivan – RVSA Senate Committee Chair (National - Qld), Senator Janette Rice (Greens - Vic), Senator Colbeck (Liberal - Tas) and Senator Glenn Sterle (Labor - WA).
- Tony McMullan and Mark H are also met with Jeff Singleton, senior advisor to Anthony Albanese (Shadow Minister for DIRDC) in early May 2018.

August 2018 update:

- Despite receiving a fair hearing by the Senators, TIC’s concerns were largely ignored in the Senate Committee’s recommendations, with only recommendation considered being that all RAW’s and SEV’s organisations should be Australian entities/registered companies.



- The RVSA legislation did not pass the Senate before the Winter 2018 parliamentary break. Now expected to pass the Senate and become law in August/September 2018.
- DIRDC announced in early May 2018 that three Working Groups would be set up to assist in the development of the RVSA “Rules” and processes:
 - Type Approvals Group
 - Concessional RAV Entry Group
 - RVSA Tools Group
- DIRDC announced on 2nd July 2018 that VSS Administrator Sharon Nyakuengama will head up the development of the RVSA “Rules” and processes as well as oversee its introduction. TIC believes that this is a significant and positive appointment.
- DIRDC announced in late July 2018 that the “kick-off” meeting for the Type Approvals Group will be held on the 10th August 2018 in Canberra. TIC will be represented at this meeting by: Mark Hammond, Chris Loose, Barry Noble and Steven Ghaly.
- TIC Members wishing to nominate to take part in any of three RVSA Working Groups and attend the “face to face” meetings please email TIC CTO stating your nominee and the



Working Group/s that you wish to be part of. Please note that TIC will keep all TIC members informed of progress and actions from each of these Groups.

Item 20: HV Brake Strategy Phase 2 – ESC:

Recap:

- TIC Members did not put forward any objections to including “short wheelbase” Rigid Trucks.
- Final ADR35/06 will require Rigid Cab-Over trucks up to 4.5m w/b and Rigid Bonneted trucks up to 5.0m w/b to meet the ESC Functional Requirements (2 and 3 axle trucks only).
- Finalisation of ADR35/06 & 38/05 with Ministerial signoff expected in May 2018.
- Further work and research to support Option 6a (ESC on all trucks) as part of ADR35/07 (AEBS) development.
- Targeting end of 2018 for draft RIS and ADR35/07 (AEBS).

August 2018 update:

- ADR35/06 and ADR38/05 approved by the Minister and released on 21st May 2018.
- ADR35/06 introduction timing confirmed as: 1/Nov/2020 for NEW and 1/Jan/2022 ALL models.



- DIRDC has released a copy of draft Circular 35-06-2-1 for feedback.
- TIC has shared the draft with CTO's as well as Wabco and Knorr.
- No feedback has yet been received, but happy to discuss now.

ADR35/07 (AEBS):

- TIC supplied, at DIRDC's request and based on Member feedback, the historical and current sales of vehicles fitted with AEBS supplied to the Australian market. DIRDC will use this information in the development of the AEBS RIS.
- TIC believes that one AEBS system supplier requires ESC functionality as the foundation for AEBS. Is this the understanding of any TIC Members?
- TIC has also informed DIRDC that it is our understanding that in Europe AEBS is only a mandated requirement on vehicles with a GVM of greater than 8 tonnes. DIRDC are of the belief that AEBS in Europe is a mandated requirement for all vehicles above 3.5t GVM. What is TIC Members understanding?
- TIC has confirmed that the USA government has abandoned plans for a FMVSS regulation for car and truck AEBS, preferring instead to opt for a voluntary AEBS standard for light and heavy vehicles that will be administered by US-NCAP. DIRDC



have confirmed that they would not consider a voluntary AEBS standard as an “alternative” to the UN-ECE AEBS regulation that will form the basis for ADR35/07. Hence all truck OEM’s will need to test to the UN-ECE R131.

- DIRDC are still targeting the end of 2018 to have the RIS complete and ADR35/07 finalised, with the ADR approved by early 2019.
- No introduction dates have been discussed, however it is conceivable that they would be one year later than ESC, ie: 1/Nov/2021 for NEW and 1/Jan/2023 ALL models.

Item 21: ADR80/04 (Euro VI and Equivalents) and DIRD’s Fuel Standards RIS:

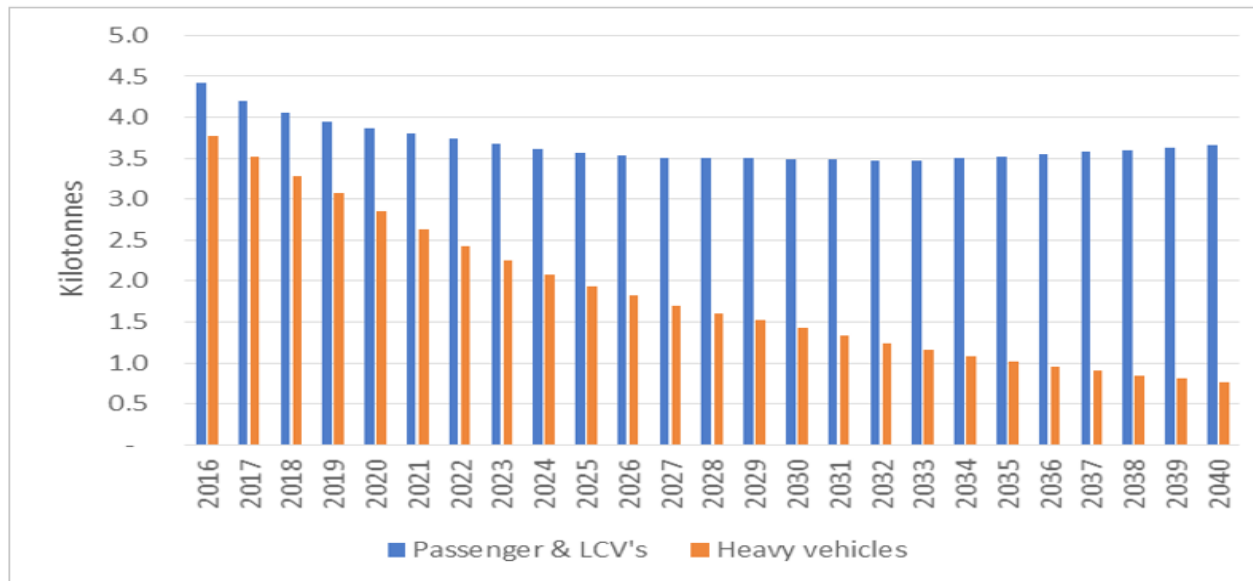
Recap:

- Unsuitable Australian Petrol fuel standards will lead to the delay of Light Vehicle Euro 6 emission standards. The current Australian Diesel fuel standard is not an issue for Heavy Vehicle ADR80/04 (**or is it?**).
- Local fuel refineries claim that they will be unable to supply Euro 6 suitable Petrol until 2025.
- If the introduction of Euro 6 and ADR80/04 was split, it would be split between Light Vehicles (both Diesel and Petrol) and Heavy Vehicles (Diesel only).



- DIRD also confirmed to TIC CTO in August 2017 that the decision to split the introduction of Euro 6 (Light Vehicles) and ADR80/04 (Heavy Vehicles) is sitting with the Minister (Paul Fletcher).
- The Fuel Quality RIS was released on the 25th January 2018, with responses due by 8th March 2018.
- TIC lodged a submission for the Fuel Quality RIS on 9th March 2018.
- So why won't the Minister separate Light and Heavy vehicle emission standards?

Figure 7. Projected PM₁₀ emissions from motor vehicles by category of vehicle, 2016–2040



➤ Euro 6 for Light Vehicles is very difficult to justify as a standalone case.



August 2018 update:

DIRDC recently released its findings and action plan following consideration of submissions received for the Fuel Quality RIS:

- Implement a voluntary monitoring plan for all grades of Petrol wholesaled in Australia 2019 to 2022 inclusive
- Review the results of the voluntary monitoring plan and develop a RIS for upgrading of Australian Petrol fuel standards in 2023, including public consultation. Develop and approve new fuel standards by late 2023 with a 3 year introduction timeframe to allow local refineries to upgrade their facilities and infrastructure
- **This would allow the introduction of Euro 6 and ADR80/04 starting from 2027**

TIC and the FCAI believe that maintaining a common timeline for the introduction of Light and Heavy Vehicle Euro 6 and ADR80/04 is unrealistic. The FCAI have a proposal that would see the introduction of Light and Heavy Vehicle Euro 6 and ADR80/04 split with:

- Heavy Vehicle ADR80/04 (Euro VI Step b (**NOT Step c**) and equivalents) introduction starting from **November 2022 for New models. Further, TIC is suggesting an ALL**



Model date of 1st January 2025. Is this supported by TIC Members, feedback to TIC CTO by 17th August 2018 please?

- Light Vehicle Euro 6 introduction starting from 2027 for New model.

Why Euro VI Step b and NOT DIRDC's current target of Step c?

Answer: The introduction of Euro VI Step c "Real Drive On-Road test", with a PM particle count number, coupled with a change in break point for Euro Light and Heavy vehicle emissions to, above and below 4.5t GVM (not above and below 3.5t GVM) requires a BETTER quality Diesel than the current Australian Diesel standard (less than 8% PAH). So many OEM's CANNOT introduce Euro VI Step c Diesel engines in Australia with our current Diesel fuel. Australia needs better quality Petrol AND Diesel.



Emission Standard	Euro 6 Step "C" (2017)	Euro 6 Step "B"	Japan PNLT (2009)	Japan pPNLT OBD I (2015)	Japan pPNLT OBD II (2017)	US-EPA 2010	US-EPA 2013 to 2017
Test Cycle	WHTC	WHTC	Japanese (2005)	WHTC	WHTC	US-EPA	US-EPA
Transient Test (TT)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Steady State Test (SST)	Yes	Yes	No	Yes	Yes	Yes	Yes
Test Limit NOx (mg/kWh)	SST - 400 TT - 460	SST - 400 TT - 460	TT - 700	SST - 400 TT - 400	SST - 400 TT - 400	SST - 268 TT - 268	SST - 268 TT - 268
Test Limit PM (mg/kWh)	SST - 10 TT - 10 Plus PM count Number <4.5t GVM	SST - 10 TT - 10	TT - 10	SST - 10 TT - 10	SST - 10 TT - 10 Plus PM count Number <4.5t GVM?	SST - 13 TT - 13	SST - 13 TT - 13
On-road Real Drive Test	Yes, up to 7 years, or 700,000km	No	No	No	Yes, up to 7 years, or 700,00km	EPA Audit Test*	EPA Audit Test*
OBD Level	Advanced	Basic	Very Basic	Basic	Advanced	Semi-Advanced	Advanced
Comments	DIRD Baseline	Not accepted by DIRD	Not equivalent	Not equivalent	TIC Proposed Alternative Standard	Not equivalent?	TIC Proposed Alternative Standard



Emission Standard	Euro 6 Step "C" (2017)	Euro 6 Step "B"	Japan PNLT (2009)	Japan pPNLT OBD I (2015)	Japan pPNLT OBD II (2017)	US-EPA 2010	US-EPA 2013 to 2017
Test Cycle	WHTC	WHTC	Japanese (2005)	WHTC	WHTC	US-EPA	US-EPA
Transient Test (TT)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Steady State Test (SST)	Yes	Yes	No	Yes	Yes	Yes	Yes
Test Limit NOx (mg/kWh)	SST - 400 TT - 460	SST - 400 TT - 460	TT - 700	SST - 400 TT - 400	SST - 400 TT - 400	SST - 268 TT - 268	SST - 268 TT - 268
Test Limit PM (mg/kWh)	SST - 10 TT - 10 Plus PM count Number <4.5t GVM	SST - 10 TT - 10	TT - 10	SST - 10 TT - 10	SST - 10 TT - 10 Plus PM count Number <4.5t GVM?	SST - 13 TT - 13	SST - 13 TT - 13
On-road Real Drive Test	Yes, up to 7 years, or 700,000km	No	No	No	Yes, up to 7 years, or 700,00km	EPA Audit Test*	EPA Audit Test*
OBD Level	Advanced	Basic	Very Basic	Basic	Advanced	Semi-Advanced	Advanced
Comments	DIRD Baseline	NEW TIC/FCAI recommendation	Not equivalent	NEW TIC/FCAI recommendation	TIC Proposed Alternative Standard	NEW TIC/FCAI recommendation	TIC Proposed Alternative Standard



Item 22: QLD-TMR and Industry review of S10 Livestock Loading Scheme:

Recap:

- The last Technical Reference Group meeting of the S10 Technical Reference Group and TMR was held on 27th July 2017.
- TMR agreed to a maximum steer axle limit of 7.1t (not 7.2t as recommended by the TRG) when fitted with 375mm, or greater, section width tyres. A maximum 6.5t steer axle limit will apply when the steer axle is fitted with less than 375mm section width tyres.
- A maximum 6x4 GVM of 28.1t was agreed to by TMR.
- No TARE weight or axle mass increases for livestock trailers (over the current S10 scheme) will be allowed.
- The QLD Livestock Association were unhappy with the truck steer axle mass limits (7.1t rather than 7.2t) and tri-axle trailer mass limits (26t on B-Doubles) offered by TMR as a workable compromise. The QLD Livestock Association have had several meetings with senior TMR and QLD Government officials over the past 12 months, however the stalemate over axle mass limits continued.



August 2018 update:

TIC CTO was contacted by the QLD-TMR Chair of the S10 Technical Reference Group (Mark Mitchell) in early July 2018 and asked to review and finalise the Truck Section of the S10 Code (HVIA were asked to finalise the Trailer Code) using the TMR proposed axle mass limits (the lower limits detailed above).

TIC CTO completed this task and responded to TMR on 18th July 2018.

TIC (Mark H and Chris L) met with Anant Bellary on the 8th August to discuss progress:

- TMR have approved the TIC developed S10 Truck Code without change.
- HVIA have only just completed their review of the S10 Trailer Code. TMR are yet to review/approve.
- NHVR have been asked by TMR to review S10 road access with local council jurisdictions, based on the slightly revised S10 axle limits.

Item 23: RVCS system Heavy Vehicle certification issues, Update and Discussion:

Recap:

- Raised by TIC CTO at March 2018 CTO meeting in light of some industry comments regarding Discussion Items raised, inconsistent review/action and delays to RVCS. applications for Heavy Vehicle IPA approvals.



- Scania provided details to TIC of the RVCS issues that they encountered with their recent new model RVSC submissions (Over 100 Discussion Items).
- TIC wanted to understand why so many Discussion Items were being raised by RVCS and requested a meeting with DIRDC/RVCS to discuss. Chris L and Mark H met with DIRDC/RVCS on 23rd April 2018.
- Issues were both DIRDC/RVCS and User related.
- TIC CTO and TO detailed some of the more common errors committed by RVCS Users at the May 2018 CTO meeting for the benefit of all TIC Members (RVCS Users).
- TIC also detailed that RVCS have developed a News Letter with 3 planned issues per year. TIC Members were urged to subscribe at:
https://infrastructure.gov.au/vehicles/compliance_and_enforcement/road_vehicle_compliance_update.aspx#subscribe

August 2018 update:

PACCAR informed TIC CTO of issues that they were experiencing with RVCS in July 2018. TIC CTO reviewed these problems and immediately raised several concerns with DIRDC/RVCS. TIC's involvement seemed to trigger a couple of outcomes:

1. A hastened review and finalisation of the Discussion Items/issues.



2. DIRDC has since sent out invitations to their much promised Vehicle Certification Discussion Forum, Meeting #1, to be held in Canberra on 3rd September 2018.

As per previous correspondence, TIC Members who have nominated to be involved are:

- Steven Ghaly, Daimler Trucks (Fuso, Mercedes-Benz and Freightliner brands)
- Steve Plumridge, PACCAR (Kenworth and DAF brands)
- Arunachalam Charith, Volvo Truck Group (Volvo, Mack and UD brands)
- Barry Noble, Hino Trucks Australia
- Damian Turner/Lawrence Lee, Scania Trucks Australia

Chris L will be TIC's representative and co-ordinator for this Discussion Forum group.

If any TIC Member is experiencing issues with DIRDC/RVCS that they believe are unjustified, or just plain stupid, please bring these to the attention of TIC's CTO and/or TO.

Item 24: Government and Industry review of AS2809, Dangerous Goods Vehicles, Update and Discussion:

Recap:

- The forum decided that:



- There were valid reasons presented that a complete review of all parts of AS2809 should be undertaken
 - ME-057 committee should be reconstituted to conduct the review
 - A list of proposed new ME-057 members was developed (including TIC)
 - Standards Australia would invite existing and new members to join the reconstituted ME-057 committee
- Chris Loose will become TIC's representative on the ME-057 committee and represent TIC Members at future AS2809 meetings
- As the review progresses TIC TO will circulate any relevant information to TIC Members for comment
- Align closer to the Euro ADR Part 9 (= to UN ECE R105) requirements.
Reduced heat shielding requirements for non-pumping units
Exhaust outlets not to conflict with ADR but can't discharge into a **zone 1 atmosphere which** is 1.5 metre from any connection/coupling point in the tank in any direction when bottom loading or 3m for top loading.

August 2018 update:

For Parts 1 and 2, July meetings were to finalise the draft content from the working group.



Refer to separate document for details regarding the truck related changes.

Timeline, approximate:

Mid July 2018: Drafts are about to be sent to Publishing services for editing.

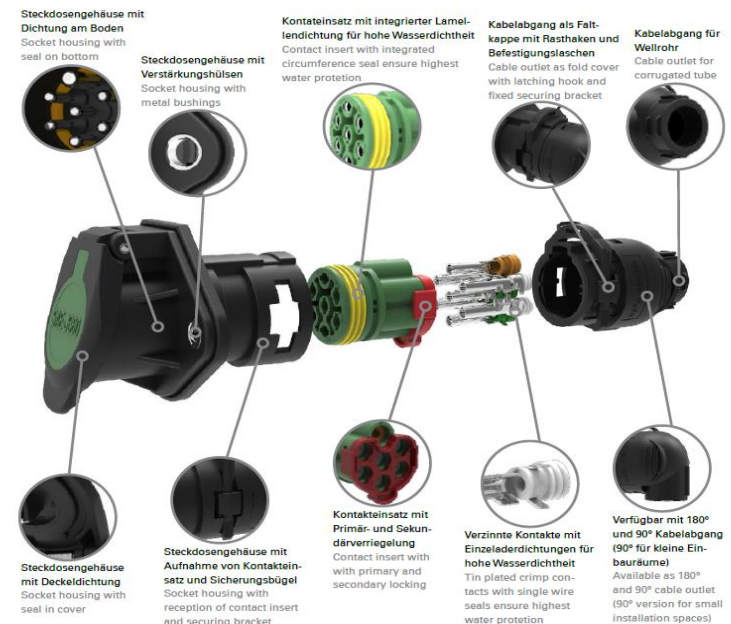
Mid August 2018: Sent to ME-57 for Endorsement.

Mid September 2018: Sent out for 9 weeks of public comment.

To be issue mid-2019.

- New 7 Pin J650 connector rating IP54
Hella distributor them here (guessing others manufacturers have access to also?)
- <http://www.erich-jaeger.co.nz/Solutions/Connections.html>

System vorgestellt - 7P/12V JAEGER Expert Steckdosen - SAE J560
System presentation - 7P/12V JAEGER Expert Sockets - SAE J560





AS2809.1

1.6 new designs and innovations

This Standard does not prevent the use of designs, materials, methods of assembly, procedures and the like that do not comply with the specific requirements of this Standard, or are not mentioned in it, provided the performance requirements specified herein are met.

Key issue regarding the requirement for heat shielding where the working group voted to remove the words “during cargo transfer” from draft AS2809.1 clause 1.5.30

1.5.8 Bumper System

~~The bumper system includes all components of the rear end bumper including mountings, bumper bar and under run protection.~~ The bumper system includes all structural elements used to protect the tank in the event of a rear collision. This can include the rear underrun protection device, subframe, drum tray etc.

1.5.47 Rear underrun protection device (RUPD)

Rear underrun protection device (RUPD) provides protection against under-running of vehicles in the event of a rear collision



~~1.5.34~~1.5.30 Hot Component

Any part of a ~~vehicle or~~ vehicle propulsion engine, or auxiliary engine, or exuast system that can attain or exceed a temperature of ~~(180degC) during a cargo transfer.~~

If the auto ignition temperature of the cargo is less than ~~(200degC)~~ then any component that can attain or exceed a temperature of (20degC) below the auto ignition temperature of the cargo, ~~during cargo transfer shall be~~ is considered a hot component.

1.5.54 Shield

a guard to protect a component

~~1.5.54~~1.5.56 Spillage Control

A shield or deflector designed to prevent cargo from making direct contact with ~~hot~~ components. ~~A deflector: a panel designed to redirect cargo. A shield: a guard to protect a hot component.~~

2.1.3 Roll Stability Systems

All heavy vehicle towing units and rigid road tank vehicles are required to have a fitted and operating roll stability control that complies with the requirements of ADR 35/06 or later version for stability control. All heavy tank trailers are required to have a fitted and operating roll stability control that complies with the requirements of ADR 38/05 or later version for stability control.

2.1.102.1.9 Battery

Battery terminals shall be electrically insulated, or the battery shall be covered by an insulating cover. Batteries which may develop ignitable gas and are not located under the engine bonnet, shall not be fitted in a sealed box.

Batteries shall be firmly secured to prevent movement and 25mm minimum clearance shall be provided between the battery terminals and any conductive surface.

NOTE: Consideration should be given to the routing of battery cables to ensure they are protected from being damaged as they have the potential to provide an ignition source.

Note2: Where an option is available for factory fitted inframe batteries this should be selected.

2.1.112.1.10 Battery Isolation Switch

A battery isolation switch shall be provided which shall shut down the engine including any auxiliary engine and all electrical power sources not permanently energised, it shall be placed as close to the battery as practicable.

If a single pole switch is used it shall be placed in the supply lead and not in the earth lead.

The switch shall be labelled "battery isolation switch" and the mode of operation specified.

The requirement are as follows

a) A means of control to turn the battery isolation switch OFF shall be located

i. located as close as practicable to the drivers door, outside of the vehicle cabin, on the driver's side,

ii. in a position that is visible and easily accessible while standing on the ground,

iii. labelled, "battery isolation switch" and

iv. labelled with its mode of operation.

and shall be labelled, "battery isolation switch" and mode of operation indicated. If the control device is electrically operated and remains energised it shall comply with the requirements of permanently energised circuits.

b) A means of control to turn the battery isolation switch OFF shall be

i. provided inside the vehicle cabin,

ii. on the vehicle dashboard in a position that is visible and easily accessible

iii. identified with a battery logo or labelled "battery isolation switch" and shall be identified with a battery logo or labelled "battery isolation switch"

iv. and shall be protected against unintentional operation by either a protective cover or by being a dual movement control device.

↳ If the control device is electrically operated and remains energised it shall comply with the requirements of permanently energised circuits.

c) Additional battery isolation switch control devices may be installed provided they are distinctively marked. If the control device(s) are electrically operated, the circuits of the control device(s) are subject to the requirements of Permanently energized circuits)

d) The battery isolation switch shall break the circuits within 10 seconds after activation of the control device.

e) The battery isolation switch shall have a casing with protection degree IP 65 in accordance with IEC Standard 60529.

f) The battery cable connections on the battery isolation switch shall have protection degree IP 54 in accordance with IEC 60529. This does not apply if these connections are contained in a housing which may be the battery box.

In this case it is sufficient to insulate the connections against short circuits, for example with a rubber cap.

NOTE: Consideration should be given to the location of the battery isolation switch to ensure it is protected from being damaged as it has the potential to provide an ignition source.

⊕

2.1.112.1.11 Permanently energized circuits

Where the cargo is flammable those parts of the electrical installation including the leads which shall remain energized when the battery master isolation switch is open, shall be suitable for use in the hazardous areas in which they are located. Such equipment shall meet the general requirements of AS 60079, parts 0 and 14 and the additional requirements applicable from AS 60079, parts 1, 2, 5, 6, 7, 11, 15 or 18;

The requirement are as follows

a) For the application of AS 60079 part 14, the following classification shall be used: permanently energized electrical equipment including leads which are not covered by section 2.1.14 and 2.1.15 shall meet the requirements for the hazardous area in which they operate for electrical equipment in general.

The requirements for explosion group IIC, temperature class T6 shall be met. However, for permanently energized electrical equipment installed in an environment where the temperature caused by non-electrical equipment situated in that environment exceeds the T6 temperature limit, the temperature classification of the permanently energized electrical equipment shall be at least that of the T4 temperature class.

b) The supply leads for permanently energised equipment shall either comply with the provisions of IEC AS 60079, part 7 ("Increased safety") and be protected by a fuse or automatic circuit breaker placed as close to the source of power as practicable or, in the case of "intrinsically safe equipment", they shall be protected by a safety barrier placed as close to the source of power as practicable.



- c) Electrical equipment and all wiring which must remain energized when the battery master switch is open shall meet the requirements of permanently energized circuits and be protected against overheating by suitable means, such as a fuse, a circuit breaker or a safety barrier (current limiter).

2.1.132.1.12 Vehicle rollover device

A rollover cut out device shall be provided. This device shall be designed to shut down the engine including any auxiliary engine and all power sources not designed to be permanently energized circuits in the event of a rollover, by activating the battery isolation switch. This device shall activate at all angles where the normal vertical plane of the road tank ~~truck vehicle~~ is greater than 45° to the vertical. The time delay for activation of the rollover cut out device to be no more than 3 seconds after detection of rollover.

Note: The device or device test function should allow for regular testing during maintenance.

Note 2: The maximum three second delay is in addition to any delay built into the battery isolation switch (Clause 2.1.11(d)).

~~rollover cut out device shall be provided. This device shall be designed to shut down the engine and all power sources not designed to be permanently energized circuits in the event of a rollover, by activating the battery isolation master switch. This device shall activate at all angles where the normal vertical plane of the tank truck is greater than 45 degrees to the vertical and within 10 seconds of reaching an angle of more than 45 degrees.~~

~~Note: The device or device test function should allow for regular testing during maintenance.~~

2.1.142.1.13 Brake Interlock Driveaway Protection

An interlock system shall be provided to ensure that the road tank vehicle is secured against movement when cargo transfer is undertaken ~~and~~. It shall be installed such that the interlock cannot be initiated unless the vehicle brake is first engaged. The interlock system shall not be able to be released unless the vehicle brake is engaged.

Items attached to the tank or tank pipework, ~~if left unsecured or projecting from the tank~~ that have the potential to cause structural damage to cargo carrying components or loss of cargo containment if left unsecured or projecting from the tank, shall require an interlock with the road tank vehicle braking system to prevent the road tank vehicle from moving in the event the items are not stowed, removed and or secured.



2.1.15 **2.1.14 Spillage hazards**

The road tank vehicle shall be designed to avoid drips and spillage onto critical components under normal operation. Shields or deflectors shall be provided where potential spillage or leakage could create a hazard.

2.7.4 Mudguards

Mudguards with heat shielding properties or heat shields should be fitted above (over) all tyres / wheels that are located directly below a cargo carrying component, to protect cargo carrying components from radiant heat caused as result of tyre or wheel end failure and fire.

NOTE stainless steel mudguards offer heat shielding and can delay or reduce the effects of radiant heat on cargo carrying components, where aluminium and plastic mudguards do not.



From AS2809.2

1.7.1 Spillage ~~control hazards~~

~~The appropriate requirements of AS 2809.1 and the following requirements shall apply:~~

~~Any hot component, shall be protected in the event of cargo containment failures or leaks, by a shield or deflector, the spillage shield shall prevent the cargo from making contact with the hot component and divert the cargo away from the hot component covered by a spillage shield or diverter.~~

The appropriate requirements of AS 2809.1 and the following requirements shall apply:

- (a) The distance between a spillage shield and any cargo-carrying component shall be not less than 75 mm
- (b) The minimum distance between any hot component and the spillage shield shall be not less than 50 mm
- (c) Either of the dimensions in (b) & (c) can be reduced to not less than 25mm as long as the total between the hot component and cargo carrying component is not reduced below 125mm.
- (e) Note: Consideration should be given to routing of pipe work away from brakes

1.8 ~~1.7.2~~ PROPULSION OR AUXILIARY ENGINE EXHAUST

The propulsion or auxiliary engine exhaust system shall comply with the following requirements:

- (a) The propulsion or auxiliary engine exhaust outlet shall not discharge within 1 metre of any cargo connection point, vent or cargo carrying component opening.
- (b) No part of a propulsion or auxiliary engine exhaust system shall be located within 200 mm of any cargo carrying component unless it complies with the ~~shielding~~ requirements of clause 1.7.1 ~~to avoid heating of the cargo carrying component.~~

1.7.3 Combustion heaters

Combustion heaters shall be compliant with UN ECE ~~ADR~~ model regulations.

← Form

← Form

← Form

← Com
norma



2.6 VEHICLE CABLING AND ELECTRICAL EQUIPMENT

2.6.1 Application

2.6.1.1 The requirements of this Clause 2.6 shall apply when the cargo is flammable, or the tanker is to operate in hazardous areas.

2.6.1.2 Cabling to intrinsically safe equipment can be protected by means other than conduit.

2.7 PROTECTION OF WIRING

2.7.1 All cables to the rear of the cabin shall be ingress protected to a minimum of IP65 or meet the requirements of AS/NZS 2053, Parts 1, 2 and 7. Alternatively shall be compliant with the technical requirements of ECE R105.

2.7.2 Cables shall be securely fastened and located, such that all wiring and fittings are adequately protected against vibration, impact, abrasion and any other types of mechanical and thermal stresses (see Figure 2.3 for a selection of acceptable methods of cable protection). All circuits, with the exception of the main battery supply, the starter and alternator circuits shall be protected by an appropriate fuse or other circuit breaker. The fuses or circuit breakers shall be mounted in the cabin or in a minimum IP66 rated enclosure where fuses are external (rearward) of the rear cabin wall they shall be of a non-sparking type as described in AS/NZS 60079.15.

2.8 LIGHTING AND WIRING WITHIN A HAZARDOUS LOCATION

2.8.1 Lighting required to be active during cargo transfer that is located within a hazardous zone shall comply with the following:

2.8.2 Mandatory vehicle lighting required under ADR13/00 or later that cannot be relocated outside of a hazardous zone can be mounted in a hazardous zone, the lighting shall be "LED" and is required to meet a minimum of IP67. The lighting shall not be located within 500mm of any cargo connection point or vent opening.

2.8.3 Non mandatory work and safety lighting may be fitted within a hazardous zone if required to improve operator safety. The lighting shall be "LED" and shall meet a minimum of IP67 with a maximum



power consumption of 40 Watts per lamp. The lighting shall not be located or able to be located within 1000mm of any cargo connection point or vent opening.

2.8.4 Connections and enclosures (i.e. junction boxes) shall have a level of protection of IP66 or higher

2.8.5 If equipment fitted by the manufacturer such as transmission temperature sensors or electronic braking system wiring, does not allow the use of IP65 or higher connectors, the hazard shall be assessed and an equivalent technique employed.

NOTE electrical equipment including all wiring should always be mounted as far as practicable from any connection points and preferably outside the hazardous area, this includes where practical running trailer and auxiliary electrical looms on the opposite side chassis rail to any outlets

2.9 ELECTRICAL EQUIPMENT AND WIRING WITHIN A HAZARDOUS LOCATION

2.9.1 Electrical equipment other than equipment described in ~~clause 2.6.3.7~~ required to be active during cargo transfer and is located within a hazardous Zone shall be approved and suitable for use in ~~the~~ [the relevant Zone](#).

2.9.2 Wiring and associated glands and junction boxes shall meet the requirements of ~~clause 2.6.2.7~~.

2.10 ELECTRICAL BONDING

2.10.1 The electrical resistance between the tank and the tanker chassis, or trailer undercarriage, and between the tank and the connection of the tanker pipework to the delivery hose, shall not exceed 10 ohms.

2.11 EARTHING POINT

2.11.1 At least one non-corrodible bare metal lug shall be provided as an integral part of the tank for use as an earthing point, unless the tanker incorporates an earth wire reel system, refer AS2809.1. The lug shall be in a position convenient for the operator but shall not be within the space enclosed by the coaming, and shall be as far away as practicable from points where flammable vapour may emerge. Additional lugs may be fitted.

2.12 ELECTRICAL CONNECTIONS BETWEEN TRUCK AND TRAILERS

2.12.1 Electrical connections between truck and trailers, for the purpose of lighting or powering any equipment on the trailers, shall have a protection rating of at least IP54 and be designed so as to limit accidental disconnection.



Item 25: The NTC's VS-MAG meeting, Update and Discussion:

Recap of the Vehicle Standards Maintenance Advisory Group (VS-MAG):

- The VS-MAG is vital to developing reform by giving the NTC a broader perspective, as the NTC does not manage roads or enforce the law. The VS-MAG gives the NTC insight into decision-makers' priorities.
- Whilst the VS-MAG is the primary conduit for consultation and information gathering, it is not the exclusive source. The NTC consults broadly, generally, and publicly in relation to reform.
- The NTC liaises directly with TISOC and Council.
- The NTC's process for developing reforms to National Law - which includes the Heavy Vehicle (Vehicle Standards) National Regulation (HV(VS)NR):
Document to be circulate to members. (P = Progressed, NP = Not Progressed)

Key discussion Items are:

- 1) VS – Engine Brake Noise
- 2) Drawbar warning devices
- 3) Tyre tread depth
- 4) Non-slip requirement for brake pedal
- 5) Requirement for trailer brake systems to be connected



August 2018 Update:

TIC has provided feedback to the NTC regarding:

- In-Service requirements for Engine Brake Noise: Supportive of the principal but not of its proposed execution. NTC has withdrawn submission for this round of VS-MAG approvals.
- Requirement for trailer brake systems to be connected: Supportive of the principal but concerned the proposal would result in wiring of truck and trailer or sequencing trailers. Proposal to be redeveloped.
- Non-slip brake pedal: Did not progress as it was considered an ADR issue.

Item 26: Co-operative ITS and Vehicle Regulations, including DIRD, ACMA, AustRoads IRG and NTC - Australian Update:

a. AustRoads C-ITS Industry Advisory Group:

- IAG meeting held on 29th May 2018 in Brisbane.
- Updates on Australian trials and international developments.



- General consensus within the IAG that autonomous vehicle “hysteria” is slowing globally as a result of a number of tragic crashes and the reality that the technology is not as developed and mature as the media hype would have suggested.....

b. National Transport Commission’s (NTC):

- Please refer to Item 5 today for the NTC’s “Autonomous Vehicle Safety Assurance Regulation RIS”.

Item 27: General Business

1. M&I’s Listing

To support members and share knowledge, we have created an M&I reference table.

Tyre Bulge - its exemption from width requirements	Definitions and Vehicle Dimensions
Exhaust Smoke emission	30/00
Allowing pPNLT as an alternative for Euro V	80/03
Allowing higher headlight height?	13/00



2. Aged Australian Standards Review and Decisions

There are currently four aged standards for the committee to consider:

- AS 2213.2-2008 — Commercial road vehicles - Mechanical connections between towing vehicles - 50 mm pin-type couplings and drawbar eyes (ISO 1102:2001, MOD)
- AS 2213.3-2008 — Commercial road vehicles - Mechanical connections between towing vehicles - 40 mm pin-type couplings and drawbar eyes (ISO 8755:2001, MOD)
- AS 2213.4-2008 — Commercial road vehicles - Mechanical connections between towing vehicles - Strength tests for pin-type couplings and drawbar eyes for rigid drawbars (ISO 12357-1:1999, MOD)
- AS 2213.5-2008 — Commercial road vehicles - Mechanical connections between towing vehicles - Strength tests for pin-type couplings and drawbar eyes for hinged drawbars



3. Aged Australian Standards status as Pending/Revision

There are three standards currently shown as Pending/Revision which require a proposal or they will be withdrawn:

- AS 2213.1-2001 — Commercial road vehicles - Mechanical connections between towing vehicles - Selection and marking of pin-type couplings and drawbar eyes
- AS/NZS 4968.1-2003 — Heavy-road vehicles - Mechanical coupling between articulated vehicle combinations - Design criteria and selection requirements for fifth wheel, kingpin and associated equipment
- AS/NZS 4968.2-2003 — Heavy-road vehicles - Mechanical coupling between articulated vehicle combinations - Testing and installation of fifth wheel and associated equipment

4. Standards project prioritisation round is open now.

This means that Standards Australia will be accepting project proposals for Australian Standards (new or revised) until Friday, 31st of August.



Item 28: 2018 CTO Meeting Calendar

Final CTO meeting for 2018: **8th November 2018, Melbourne (Isuzu's NEW Offices)**

Item 29: Meeting Close

CTO thanked Members for their continued attendance and participation in this TIC technical forum.

The meetings scheduled close is 3.00pm (actual close 3.17pm)

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