

New Initiative Form

This form must be used to socialise new proposals to the NHVR Technical Working Group (TWG) and will be used to seek views and gain the understanding of and input from members and key stakeholders. It will be used to ensure new proposals are well articulated so they can be properly assessed by the TWG to progress to the NHVR's Forward Work Implementation Proposal phase.

| | |
|----------------------------------|--|
| Completion Responsibility | NHVR Vehicle Safety and Performance Unit |
| Proposal Name | Brake Testing Proposal |
| Date | 21 October 2016 |

Initiative Purpose/ Problem Addressed

There appears to be some conjecture in regards to the ability of heavy vehicles, in particular trailers, to meet the brake performance requirements specified in the Heavy Vehicle National Law (HVNL) and National Heavy Vehicle Inspection Manual (NHVIM).

The NHVR is proposing that the TWG ascertain the reasons why some heavy vehicles (trailers) are not able to meet the current 4.5kn/T brake performance testing requirements in the NHVIM.

The initiative will investigate testing methodologies for meeting in-service brake performance requirements within the NHVL.

An initial document search will determine what data is available on the different test methods associated with various brake test equipment being used by inspection service providers to test brake performance.

This may extend to broadening the testing undertaken by the NHVR in collaboration with brake equipment manufacturers and industry in September 2016. This testing will only be required if the data research does not provide a conclusive answer to the question of why trailers are presently failing to comply with the current brake performance requirement.

The aim is to develop a testing procedure that produces a robust, fair and reliable brake test method to provide certainty as to the performance of heavy vehicle braking systems performed by inspection service providers.

Out of Scope

- Issues related to the ADR approval of foundation brakes, although it may raise issues with and inform potential future work in this space for the review of ADR 35 and 38 by the Department of Infrastructure and Regional Development.
- The application of weight to the heavy vehicle for the purpose of conducting a brake test, although it may raise issues with and inform potential future work in this space.
- Issues related to the in-service modification of braking systems (changes made to as manufactured brake systems and vehicles (trailers) to comply with the in-service brake test performance requirements, although it may raise issues with and inform potential future work in this space).

Cost-Benefit Analysis

The ability of heavy vehicles to brake effectively is essential to road safety and the community, including vehicles, operators and drivers should be confident that industry are compliant and that any NHVR testing regime that validates compliance is robust, fair and reliable.

The economic consequences of crashes is well known and although obtaining data associated with brake failure as a cause of heavy vehicles crashes is difficult we can estimate that there are significant community savings to be made by ensuring heavy vehicles are effectively braking.

In addition, there are other costs associated with not having an effective brake testing regime, such as the burden on vehicles operators having to adjust maintenance practices and processes to ensure compliance. The ongoing maintenance requirements related to testing and re-testing of failed vehicles places direct costs on industry as well as those related to any assurance regime to monitor compliance by the NHVR. It has not been possible to quantify these costs at present.

The social implications of heavy vehicle road crashes affect operators, drivers and their families and the community through road trauma and dealing with the aftermath of such events can be life-long. Efforts to reduce these incidents contribute greatly to improving social outcomes within many communities of interest.

Estimated Duration (if known)

It is proposed that this work be completed by 31 January 2017.

Estimated Proposal Cost (if known)

During this project should the NHVR not be able to ascertain an understanding of why heavy trailers are not meeting the brake performance requirements through research further testing may be required. It is estimated that even with the in-kind support of inspection service providers, operators and equipment manufacturers a testing program will cost approximately \$100,000.

The NHVR is prepared to contribute officer support and may consider what funds might be made available for a testing program. The NHVR would actively seek the support of industry, operators and equipment manufacturers to fund this testing program.

Consideration might be given to examining the Out of Scope issues if this testing program proceeds to achieve value for money.

Estimated Resource Required (if known)

This proposal will be funded through internal business-as-usual funding and can be absorbed by the NHVR. The NHVR estimates that a full-time equivalent (FTE) resource of 0.25 is required to manage and completed this proposal through to 31 January 2017.

The NHVR is unable to ascertain what industry, operators and inspection service provider participation might extend to but can assume that it would be equivalent in FTE to that of the NHVR's for those organisations actively participating over the projects life-cycle.

External Consultation/ Engagement Required (if known)

There is a requirement for ongoing consultation with industry, operators and equipment manufacturers and it is the NHVR's expectation that industry associations on the TWG will provide members with updates on the progress of the project.

The NHVR will keep jurisdictions apprised of the progress as well as general information through our industry updates and newsletter.

It is expected that equipment manufacturers will be advising clients of the projects progress where required.

The NHVR will develop a transition plan to deliver any of the outcomes of the project for inspection service providers and equipment manufacturers where changes may be required to brake testing methods, procedures and practices.

A communication plan will be required to alert industry, operators and drivers to any new testing requirements and a call to action about how they can assist with any potential change.

| Industry Expectations | Community/ Stakeholder Expectations |
|--|---|
| <ul style="list-style-type: none"> • That the NHVR publicises and is transparent about how it developed and implemented a robust, fair and reliable brake test method. • Compliance to the brake performance requirements are achievable and applied consistently nationally. • Testing personnel and facilities are provided with clear guidance on the conduct and procedures related to pass/fail criteria. • Operators and drivers understand what they are required to do when subject to a brake test and how they can facilitate the performing of an effective test. | <ul style="list-style-type: none"> • Heavy vehicles when tested are compliant to the brake performance requirements and safe to remain on the road network. • That there are active programs to monitor and manage heavy vehicle brake performance by both industry and the NHVR to assure compliant brake systems. • Where non-compliant vehicles are identified that appropriate measures are in place to bring these vehicles back into compliance. |

Estimated Proposal Size (if known)

Small

Medium

Large

Chair Recommendation

The TWG are encouraged to support the adoption of this proposal. The establishment of a TWG sub-group is recommended to progress this proposal to assist the NHVR deliver in a timely manner. The sub-group might consist of:

- brake equipment manufacturers – VIS, MAHA, BM
- regulatory authorities – RMS, QTMR
- industry associations – ATA, NBTA, BIC, ARTSA
- vehicle and trailer Original Equipment Manufacturers – HVIA, TIC, CVIAA.

The NHVR acknowledges and would like to see the continued active contribution of in-kind support to the work already facilitated by the NHVR.

The NHVR is unaware of any other work or projects being undertaken either in Australia or internationally in regards to this or a similar like proposal. We are aware that equipment and brake manufacturers have undertaken extensive testing and analysis, although much of it is not aligned to the proposal, and it is important that this be reviewed and understood prior to progressing to any further work.

The NHVR is keen to ensure it sees and is made aware of the full extent of this previous work so that it can build on it or indeed resolve the problem.

Approval to proceed to Forward Work Inclusion Proposal

Technical Working Group Chair

Approved

Name: Geoff Casey

Title: Chair Technical Working Group

Rejected

Signature:

Date: 18 November 2016