

Mr James Williams
Level 15, 628 Bourke Street
MELBOURNE VIC 3000

Contact: Peter Taylor
Telephone: (03) 9854 2903
Our Ref: QD3170941

Dear Mr Williams

Thank you for the opportunity to provide input into the *Developing a Heavy Vehicle Fatigue Data Framework Discussion Paper August 2015*.

VicRoads views the development of a Heavy Vehicle Fatigue Data Framework as a critical step in understanding fatigue issues in the heavy vehicle industry in general and as essential to support the effective regulation of fatigue in the heavy vehicle industry overall.

Please find attached general feedback and comments as well as responses to the questions proposed.

Should you require any further information, Mr Peter Taylor, Manager Road Transport Policy (Tel: (03) 9854 2903) would be pleased to assist.

Yours sincerely



ANITA CURNOW
EXECUTIVE DIRECTOR POLICY AND PROGRAMS

16/10/2015

VicRoads' Submission

Developing a Heavy Vehicle Fatigue Data Framework Discussion Paper August 2015

October 2015

Thank you for the opportunity to provide input into the *Developing a Heavy Vehicle Fatigue Data Framework Discussion Paper August 2015*. VicRoads provides the following general feedback and comments as well as responses to the questions proposed.

In general

VicRoads views the development of a Heavy Vehicle Fatigue Data Framework as a critical step in understanding fatigue issues in the heavy vehicle industry in general and as essential to support the effective regulation of fatigue in the heavy vehicle industry overall.

The scope of the envisaged framework is extensive however, while none of the data collection activities are perfect and complete, the framework takes a practical approach to data collection which takes advantage of existing information and data sources. It leverages the value of the data by improving national consistency, linking multiple data sources and centralising the data storage. Given the recommendation that the data be an open source data set, appropriate use of the data and an understanding of its limitations will be incumbent on all who make use of the data.

The integration of many sources of data from detailed personal and sensitive information requires the highest levels of technological integrity and security coupled with strong legislative protections to guarantee information privacy, protect commercially sensitive data and to clearly specify that the data is for research purposes only and is not to be used for compliance and enforcement activities. Without these protections and guarantees, VicRoads considers that little voluntary information will be forthcoming resulting in the framework being far less effective.

By its nature, the implementation of the framework will require resources and a financial commitment from both government and industry. VicRoads will potentially be required to resource initial development costs to: modify data collection, storage and analysis systems; develop new data collection processes and provide appropriate guidance and training. It is likely there will also be ongoing costs related to required increases in resources to collect, analysis and provide data to the framework. The costs and timeframes to implement the framework are outside the scope of the current study and are therefore an unknown quantity.

Final approval and commitment to implement the framework will therefore be contingent on:

- The development of a high level project plan which includes timeframes and provides sufficient information to allow VicRoads to determine both establishment and ongoing costs; and
- Further work being undertaken to specify the technical standards and legislative controls necessary to ensure the integrity, security and privacy protections related to the ongoing collection, storage and analysis of the data.

VicRoads therefore provides in principle support for the development of a Heavy Vehicle Fatigue Data Framework.

Consultation questions

1. Do you agree with the fatigue issues identified in the discussion paper? Are there other issues that should be included?

VicRoads supports all the fatigue issues identified in the discussion paper. Other important issues that are mentioned in the discussion paper but warrant being expanded upon are:

- Technology to objectively measure driver fatigue impairment
- Drug use by heavy vehicle drivers
- Crashes close to home for long distance drivers

Technology to objectively measure driver fatigue impairment

The data framework should collect appropriate data from the companies using technology to objectively measure driver fatigue impairment and from independent organisations assessing these technologies. This would allow evidence based evaluations of these technologies and guide decisions on their use for allowing working/rest hours flexibility in the current prescriptive regulatory approach.

Drug use by heavy vehicle drivers.

Given that 18% of the road toll is associated with heavy vehicle crashes, 80% of those killed are not heavy vehicle occupants and a significant proportion of heavy vehicle drivers killed test positive to drugs, drug use by heavy vehicle drivers is a major community concern and should be listed for consideration as a separate issue in the heavy vehicle data framework.

Crashes close to home for long distance drivers

National Transport Insurance data indicates that fatigue crashes often happen at the beginning of a long journey rather than towards the end. While it is acknowledged that this issue may be raised as part of the discussion around 'driver wellbeing and fitness to work' and the 'impact of local work', it warrants further exploration.

VicRoads also holds some concern regarding the wording of fatigue issue 3: Continuous hours of work – including Basic Fatigue Management (BMF) and Advanced Fatigue Management (AMF) (pg 1).

Issue 3 states "One of the most sought after outcomes for the framework is to be able to report statistically on the number of fatigue-related crashes caused by drivers working under BMF or AFM – ". VicRoads considers the words "caused by" are not appropriate.

It is recommended that "caused by" be changed to "associated with" as it is not possible to prove that fatigue is the sole cause of a crash. There are always other factors causing crashes and the definition for the evidential use of the word "fatigue" is not able to be agreed upon by either legislators or scientists.

2. What is your view on the proposed prioritisation of fatigue issues identified in the discussion paper?

VicRoads suggests the following modified prioritisation of the fatigue issues presented below:

- Priority 1 – Nose to tail schedules (#1)
- Priority 2 – Impact of local work (#6)
- Priority 3 – Threshold application of fatigue laws and work diary record-keeping (#7)
- Priority 4 – No short rest breaks required for two-up drivers working BMF (#4)
- Priority 5 – Continuous hours of work – including BFM and AFM (#3)
- Priority 6 – Quantity and quality of sleep attained in major rest breaks (#2)
- Priority 7 – Night time driving and ending shifts in the early morning (#5)
- Priority 8 – Driver wellbeing and fitness to work (#8)
- *Priority 9 – Drug use by heavy vehicle drivers*
- *Priority 10 – Crashes close to home for long distance drivers*
- *Priority 11 – Technology to objectively measure driver fatigue impairment*

VicRoads supports that the “nose to tail schedules” issue be the first priority given that this is a current key policy issue.

VicRoads recommends the paired issues of “impact of local work” and “threshold application of fatigue laws and work diary record keeping” be the next priorities as anecdotal evidence suggests there is an increase in fatigue problems during local work which then relates to understanding the current effects of record keeping for this type of work.

VicRoads next priority is the paired issues of “no short rest breaks required for two-up drivers working BMF” and “continuous hours of work – including BFM and AFM” as these are again important operational issues which, anecdotally, appear to be causing fatigue related problems.

The VicRoads listed priorities 6, 7 and 8 relate to broader research activities and understandings which should be considered after specific policy issues are addressed.

Finally VicRoads would like to see the three additional issues raised in Q1 included in the prioritisation with “drug use by heavy vehicle drivers” identified as the most pressing issue due to the apparent high prevalence of drug use by heavy vehicle drivers.

3. What other data collection activities exist in government or industry that the data framework should consider?

VicRoads supports the existing data collection activities detailed in the discussion paper however the collection of 28 days of records by Authorised Officers when specific patterns of behaviour are identified is considered difficult in an operational environment.

It is considered problematic to expect Authorised Officers to recall a number of patterns of behaviour which then need to be manually identified from written work diaries which are being checked during routine or targeted compliance and enforcement activities. The focus of Authorised Officers in this setting should be on the compliance and enforcement activities and not be complicated by an unrelated data collection exercise.

If this activity were to proceed, legislative provisions to permit this data collection by Authorised Officers would need to be reviewed. Details of the handling of the 28 days of work diary records such as who holds the records and who de-identifies the data would need to be carefully considered in terms of privacy and cost.

VicRoads suggests the following additional data collection activities for inclusion in the data framework:

- Data from the companies using technology to objectively measure driver fatigue impairment and from independent organisations assessing these technologies. This would allow evidence based evaluations of the technology and guide decisions on their use for allowing working/rest hours flexibility in current prescriptive regulatory approach.
- Expanded data from drug and alcohol testing of heavy vehicle drivers such as whether the driver was operating under standard hours or BFM or AFM.
- Surveys of compliance and enforcement officers in addition to periodic industry surveys.
- Expanded provision of commercial fatigue management data to include onboard IT data from transport companies on a voluntary basis. For example, recorded incidents of near misses, driving behaviour and lane wandering etc.

4. Do you agree with the need for more comparable and accessible fatigue data to underpin future reforms? If not, what alternative approach do you propose?

VicRoads agrees in principal with the need for more comparable and accessible fatigue data as a critical step in understanding fatigue issues in the heavy vehicle industry and supporting effective regulation of fatigue.

The implementation of the framework will require resources and a financial commitment from government and industry; final approval and commitment to implement the framework will be dependent on sufficient information being provided to allow VicRoads to determine implementation and on-going operational timeframes and costs.

5. Do you support an open data approach to fatigue data? Consider in your response the benefits and challenges of open data compared to other data handling approaches.

In accordance with the Victorian Government DataVic Access Policy, VicRoads supports an open data approach to fatigue data.

However, VicRoads suggest that further consideration needs to be given as to how to:

- Ensure controls are in place to guarantee the integrity, security and privacy of the data.
- Ensure that the legislative and regulatory controls are in place to guarantee data will not be used for compliance and enforcement activities.
- Ensure data is de-identified, noting that achieving fully de-identified data can be difficult where fatigue data is linked with accurate location information such as is the case for Electronic Work Diaries (EWDs).

6. What is your view on the proposed framework methodology relating to proposed terminology and coding, proposed system changes and proposed process changes?

VicRoads supports the proposed framework methodology in principle. While acknowledging the detail behind the fatigue data framework is beyond the scope of this project, VicRoads has the following further comments:

- Options around ownership, storage and handling of the data need to be further explored to ensure the privacy and integrity of the data.
- A governance framework needs to be developed to ensure integrity, security and privacy protections are in place.
- Legislation needs to be reviewed and potentially modified to support the agreed ownership and governance arrangements for the framework.

7. What is your view on the validity and characteristics of a fatigue likelihood scale?

VicRoads supports the fatigue likelihood scale in principle and considers the concept of measuring fatigue as a likelihood rather than an absolute to be a good approach.

To ensure the integrity of the data, further work is required to clarify and expand the indicators. The usefulness of a fatigue likelihood scale will be contingent on development of additional detail around how the indicators would be applied, who would apply them, and appropriate scales and controls.

The fatigue likelihood scale appears to call for a significant level of judgement on the part of the assessing officer. It would be useful to have examples of similar scales from other safety studies (perhaps in aviation), and some discussion of their reliability as a research tool.

8. What is your view on the proposed framework principles?

VicRoads holds a number of concerns about the ability of the research guidelines to properly protect the data.

Research guidelines specify how data is collected for research which is different from how it will be collected in many cases for the Heavy Vehicle Fatigue Data Framework. If data, such as EWDs or commercial fatigue management data, is loaded into the framework researchers will be unable to communicate with participants individually to obtain consent for the use of the data.

If the open data model were adopted, the data would be freely available to everyone to use for any purpose and without restrictions or gate keeping; such use would not be covered by existing ethical research guidelines.

For the framework to be successful, VicRoads considers legislative protection around the collection, storage, de-identification and use of data for the framework based on the Australian Privacy Provisions to be essential.

9. What is your view on the data collection and research activities proposed in the discussion paper?

VicRoads suggests the following principles guide data collection and research activities:

- Questions asked in an on-road environment need to be short, simple and to the point.
- Information collected from written work diaries is always going to be extremely labour intensive hence the use of this process needs to be well considered and targeted.
- Legislative changes may be required to use data in the framework collected from compliance and enforcement activities.
- Requests for more detailed information will need to consider the practicalities of collecting the data, including who is going to collect it and how much it will cost.

VicRoads agrees with the concept of collecting standard information at every crash and considers the standard crash report questions in the discussion paper to not be overly onerous.

VicRoads notes the suggestion on page 48 which commences “if infringements are linked to detailed work diary records...”. While VicRoads appreciates the potential research value of this type of data, linking the written work diary records with the infringement records would, of necessity, involve matching personal data across multiple jurisdictions using manual methods which would have considerable implications for privacy. VicRoads cautions that considerable thought would need to be applied regarding the practicalities and consequences of this type of linking and whether it is justified compared with the possible value that could be gained.

VicRoads supports the use of EWD data, in principle, provided the data can be effectively de-identified. The difficulties of achieving de-identified data should not be underestimated when the fatigue data is linked with accurate location information as is the case with EWDs.

Noting that EWDs are not yet in operation and that it will be some time before the uptake of EWDs provides a good base of data, effective de-identification procedures may be able to make some of this data available to the framework in the medium to long term.

VicRoads also notes the following:

- In Victoria, filled-up work diaries are not returned to the road authority. (p50)
- The Alertness CRC is a research group therefore their ability to collect, manage and update a database on an ongoing basis may be limited. They may be more suited as a user of the data, and a collector and producer of specific types of data as opposed to a manager of a database/framework. (p51)
- Consideration could be given to expanding the standard crash report questions (2&3) to all drivers. While it is acknowledged that this is outside the scope of the framework, it would enable comparisons between light and heavy vehicle drivers which could be valuable.

- 10.** How best should the data framework be funded and governance arranged? Consider in your response organisations that could be best placed to undertake responsibility for the framework.

VicRoads considers Transport Certification Australia (TCA) to be best placed to act as custodians of the data, where they could be responsible for collecting and de-identifying the information before it became available as open data.

As a non-regulatory, government owned body, TCA is best placed to ensure the integrity and privacy of the data while being able to provide the necessary technological expertise to manage the framework as they currently undertake similar tasks with other data sources. The TCA could be funded through jurisdictional member contributions and possibly through contributions by other invested users of the data.

Jurisdictional agencies could be responsible for funding any local system changes and training required to support the framework.

Further work is required to develop a high level project plan with sufficient information to allow VicRoads to determine both establishment and ongoing costs.