



THE UNIVERSITY OF
NEW SOUTH WALES



Assessment of Existing Approaches to Corporate Safety Management - for Public Consultation

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FORWARD

As we move into the Global Decade of Action for Road Safety, Australia's policy commitment is for *Safe System* principles to underlie all that we do. The National Transport Commission seeks to learn how best to work with businesses and industry to identify existing and potential safety approaches that will improve land transport safety. Consistent with Safe System principles and the National Road Safety Strategy, the NTC will strive to work collaboratively with private sector and other stakeholders to leverage best road and transport safety outcomes for Australia.

The examination of the Safe System approach takes into account the occupational safety imperative that *Employers have a duty of care to provide a safe system of work and employees have a duty of care to follow whatever directions they are given by the employer*. It also incorporates the Australasian evolution of Sweden's *Vision Zero* and the Dutch *Sustainable Safety* principles as they relate to road travel. The key elements to the Safe System principles adopted by the Australian Transport Council are:

- it is accepted that crashes will continue to occur, prevention efforts notwithstanding;
- the challenge for the proposed Safe System in the event of a crash, is to ensure that the impact forces released in the event of a crash are within the boundaries of human tolerance and that no fatalities will occur (and that serious injuries will be reduced);
- the key task of the Safe System is to manage vehicles, the road infrastructure and speeds in order to minimize the probability of death as a consequence of a road crash;
- as with Vision Zero and Sustainable Safety, the Safe System approach does not dismiss individual road user responsibilities and behavioural countermeasures (for example, it stipulates the need for alert and compliant road users) but explicitly points to these aspects as supporting components of the system

Apart from Government road authorities that carry the primary responsibility for safe use of the road network, others including private sector companies also must be encouraged to share the responsibility for ensuring that all that can be done to prevent harm to road users will be done.

While nationally consistent regulation for heavy vehicle transport safety is important, the NTC hopes to advance the Safe System approach through means of supporting and encouraging industry efforts to engage in proactive safety management as it relates to road travel safety.

With this in mind, the aim of this project is identify the developments to date that relate to advancing Safe System approaches to corporate road safety and safety management practices more generally, and to examine the feasibility of adapting advancing these practices in the Australian corporate fleet context.

The project is expected to identify existing approaches and possible alternatives to corporate road safety management (Australia and international) including the development and advancement of the new road safety standard, ISO39001, and find ways to work with organisations to identify safety management elements of their own operations that can be improved and/or extended more widely.

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EXECUTIVE SUMMARY

A review of the peer reviewed literature finds that there is no proven comprehensive system of safety management that can assure optimal safety outcomes for road transport. There are some empirical studies that have indicated that certain elements of safety management in the occupational safety, aviation and other spheres have yielded good results. Moreover, an examination of corporate safety and work related road safety initiatives enables a critical assessment of what makes these programs effective and ineffective. Nine programs were assessed in some detail and nine additional programs were described. The strengths and weaknesses of each were highlighted for consideration.

The corporate safety programs were grouped into four distinct types; although some programs featured characteristics of two or more types. These types included:

1. *Standards and auditable safety management programs;*
2. *Benchmarking programs;*
3. *Continuous learning programs; and*
4. *Codes of practice.*

Programs incorporating each type, aimed to improve safety management practices through a defined process involving interaction with external agents.

The key strength of standards and auditable safety management programs, such as AS/NZS 4801 occupational safety standard, Basic Aviation Risk Standard, NHVAS and TruckSafe are that an independent audit assures that safety management systems are in place. The disadvantage is that the administration of these programs is costly in time and money for corporate entities and they may feel that they are not getting enough value for the road safety investment.

Benchmarking programs can work well to encourage cross-corporate commitment, learning, and a collegiate approach to improving safety management. But learning from programs is often limited because of a reluctance to share performance and other information between organizations. NETS and fleetsafetybenchmarking.net both have websites that have “members only” data available and it tends to be general in nature.

Continuous learning programs such as the Western Australia Partnership Program and the Fleet Safety Benchmarking Workshop series provide a good mechanism for cross-organisational learning. But these programs are rare and somewhat ad hoc.

There are a number of “codes of practice” for corporate safety management. For example, the European Charter, National Logistics Code, and Responsible Care, have the benefit of providing advice to those who choose to adopt or adapt the practices proscribed without a cumbersome process of auditing. The weakness is that they can be treated as ‘coffee table’ policies. That is, organizations can pledge to become safer without doing much to achieve it.

A further weakness is that recalcitrant organizations that do nothing and have a poor road safety track record may refuse to implement a safety program. Indeed, it is often the worst performing companies that are of greatest concern and contribute to the overall road safety problem. Hence, any program adopted must also consider random auditing, enforcement and prosecution in instances where negligence has led to injury or death.

A critical review of safety management programs points to weaknesses that can be avoided in constructing a safety management program for advancing corporate road safety. The strong elements extracted from the programs reviewed can be woven into a framework for a sound corporate road safety initiative.

This report explores the existing corporate safety programs with a view to identifying the best elements of these programs for further development and evaluation.

INTRODUCTION

The current mission of the National Transport Commission (NTC) is to “lead national transport regulatory and operational reform nationally to meet the needs of transport users and the broader community for safe, efficient and sustainable land transport.”¹

This report aims to provide information about transport safety programs to contribute to decisions about the future strategic directions for the NTC.

Increasingly the corporate sector is becoming more proactively involved in road safety, particularly in the heavy vehicle transport sector. This has probably been largely a result of transport and occupational regulatory initiatives more so than intrinsic commitment by corporate executives to put safety above or at par with commercial objectives. However, there have been some significant and innovative approaches by companies and industry groups to the advancement of good road safety practices.

While traditionally the NTC has concentrated on work to support harmonization and efficacy of transport regulations, in doing so, it has developed a bridging appreciation of industry and government issues and concerns.

With the advent of the creation of a National Regulator for heavy vehicle transport legislation, it is timely for the NTC to consider its unique opportunity to develop a strategy that will help to leverage more effective participation in road safety by the corporate sector. The NTC’s charter is unique in that it is an independent statutory body that does not have a regulatory nor enforcement role.

This project set out to assess existing approaches to corporate safety management in Australia and in other countries and regions. The key aim of the project is to find ways that the NTC can effectively participate in the advancement of the Safe Systems approach through identifying good practices and promoting the uptake of these practices in Australian corporate fleets.

ASSESSMENT METHODS

The first task of the project was to examine the existing literature and websites to identify evidence based practices consistent with safe system approaches. Then theoretical literature was explored to further identify corporate and industry sector road safety initiatives. The relatively new (draft) ISO 39001 (road safety) standard was examined for potential for the NTC to build safety programs and strategies around this standard. Then, a selection of identified programs were evaluated against a template of six criteria including:

- **Proactive Safety Management** – *focused on the reduction of death and serious injury, which requires organisations to examine their own road safety data. Therefore creating a better understanding of their road safety risks and issues.*
- **Safe System** – *takes into account human propensity to err and attempts to safe guard the system from causing injury through design and management practices.*

¹ NTC Strategic Plan 2010/11 – 2012/13 <http://www.ntc.gov.au/docview.aspx?documentid=2004>

- **Promotion and Acknowledgement** – *Ensures that organisation can be promoted both internally and externally as well as allow for the opportunities to organisational self-promotion*
- **Provide Generic Guidance Statements** - *based on the Safe System approach to Road Safety supported by detailed documentation that support road safety best practices – Statements need to ensure engagement from senior management to implementation on the ground.*
- **Incorporation of ISO 39001** – *assists to advance compliance with this standard.*
- **Adaptability to Australian Context** – *possible to adapt as a National Program.*
- **Evaluation and Monitoring** - *progress and risk assessments for ongoing improvement.*

These criteria were defined in the brief for this project by the NTC. A report on the advantages and disadvantages of each program was compiled with a view to assessing the best-fit and most beneficial programs for the NTC to pursue.

An initial report on findings was presented to the NTC Project Team for consultative discussions. Recommendations were then prepared for consideration by the NTC for incorporation in its program of work.

EVIDENCE BASE FOR CORPORATE SAFETY PROGRAMS

An extensive empirical literature search has yielded surprisingly little evidence about the effectiveness of corporate safety programs. A review of 4,837 studies² found very little definitive peer-reviewed evidence for the effectiveness of occupational safety management systems. However a synthesis of the results of the small number of studies reviewed suggested that it is likely that safety management characteristics may be able to predict good safety outcomes. Some study findings that are of some help are described in this section of the report.

In the corporate road safety setting the only quantitative empirical study with definitive results was a comparative intervention study of the Swedish company Telekervet (Gregersen, 1996). This research found that of four types of corporate road safety intervention methods, a group discussion intervention achieved the best safety outcomes compared with driver training, cash incentives, road safety communications, and no intervention.³ Despite this finding there have been few attempts to build safety programs based on this approach and none have been evaluated. However, there is some further evidence of the effectiveness of consultative or participative safety management practices. Morrow et al⁴ concluded that worker involvement and empowerment could serve to reduce the work-safety tension, which is related to safety compliance behaviour. Silva, Lima and Baptista⁵ also found evidence that personal involvement in safety correlated highly with accident rates. Moreover, based on a

² Robson, L., Clarke, J., Cullen, K., Bielecky, A., Severin, C., and Bigelow, P., (2007) The effectiveness of occupational health and safety management interventions: a systematic review, *Safety Science*, 42(3) 329-353

³ Gregersen, N. P., Brehmer, B., & Moren, B. (1996). Road safety improvement in large companies. An experimental comparison of different measures. [doi: DOI: 10.1016/0001-4575(95)00060-7]. *Accident Analysis & Prevention*, 28(3), 297-306.

⁴ Morrow, S. McGonagle, A. Dove-Steinkamp, M. Walker, C. Marmet, M. Barnes-Farrell, J. (2009). Relationships between psychological safety climate facets and safety behavior in the rail industry: A dominance analysis. *Accident Analysis and Prevention*.

⁵ Silva, S., Lima, M., & Baptista, C. (2004). OSCI: an organisational and safety climate inventory. *Safety Science*, 42(3), 205-220.

study⁶ of Spanish companies (services, building and industrial) and a safety management framework including an integrated process of policy setting, consultation with employees, communication about risks and how to manage them, planning actions to avoid or respond to accidents and control or feedback on actions was confirmed to be a good basis of a safety management assessment tool.

While post license driver training has been found to show mixed safety improvement results,⁷ there is some evidence that driver training is a good intervention for heavy vehicle drivers. An American study of 300 commercial heavy vehicle drivers found that drivers with between 7-9 weeks of formal training or having 10 years of commercial driving experience have fewer crashes and traffic violations than those who don't have the equivalent formal training or experience (Evans, 2002)⁸. Moreover, a British case study data analysis of a large organization found that efforts to assess attitudes and behaviours associated with poor driving and then to improve these through training and other interventions achieves good safety results.⁹

Mejza et al (2003)¹⁰ examined driver management practices of US trucking companies and found that the safest trucking firms apply screening criteria consistently in all driver-hiring situations.

There have been a number of studies demonstrating that driver pay rates and systems have an influence on safety outcomes. Golob and Hensher (1994)¹¹ compared self-imposed schedules of drivers (79% of the study sample were drivers who were paid directly in proportion to earnings of the truck). They found that drivers with higher pay exhibited lower speeds and that the propensity to take pills was related to self-imposed schedules. In a study by Corsi et al, 2002¹² pay rates were a dependent variable and defined only in relative terms, ie as a proportion of operating costs. They found that across all transport industry segments the higher the proportion of operating expense that is devoted to wages, the better the safety performance. Belzer et al, 2002, found that driver pay strongly predicts truck driver safety. In one company a pay increase corresponded with a reduction in crashes by approximately 50%. In support of this finding Rodriguez et al¹³ found in a longitudinal controlled case study that an increase in wages resulted in fewer crashes and improved driver retention.

⁶ Fernandez-Muniz, B., Montes-Peon, J., and Vazquez-Ordas, C., (2007) Safety culture: analysis of the causal relationships between its key dimensions, *Journal of Safety Research*, 38(6) 627-641

⁷ Christie, R. The Effectiveness of Driver Training as a Road Safety Measure: A Review of the Literature, November 2001, Report No. 01/03, Royal Automobile Club Of Victoria, ISBN 1 875963 26 X

⁸ Evans, T., A Study To Determine The Correlation Between The Length Of Formalized Training And The Driving/Safety Records Of Commercial Truck Drivers. The Graduate College University of Wisconsin-Stout December 2001 (unpublished)

⁹ Darby, P., Murray, W., and Raeside, R., Applying online fleet driver assessment to help identify, target and reduce occupational road safety risks, *Safety Science*, 47, 2009, 436-442.

¹⁰ Mejza, M. C., Barnard, R. E., Corsi, T. M., & Keane, T. (2003). Driver management practices of motor carriers with high compliance and safety performance. *Transportation Journal*, 42(4), 16-29.

¹¹ Golob, T. and Hensher, D. (1994). *Driver Behavior of Long Distance Truck Drivers: The Effects of Schedule Compliance on Drug Use and Speeding Citations*: University of California Irvine.

¹² Corsi, T., Barnard, R. and Gibney, J. (2002). *Motor Carrier Industry Profile: Linkages Between Financial and Safety Performance Among Carriers in Major Industry Segments* (No. FMCSA-RI-02-009). Washington, DC.: Federal Motor Carrier Safety Administration, Analysis Division U.S. Department of Transportation.

¹³ Rodriguez, D. Targa, F. Belzer, M. (2006). Pay incentives and truck driver safety: a case study. *Industrial and Labor Relations Review*, 59(2).

Proactive safety management pays good safety dividends. In the occupational safety context, Vredenburg¹⁴ found that what differentiated US hospitals with low injury rates was a proactive approach to prevent accidents. In the transport sector, Moses and Savage (1994) examined motor carrier safety audit records for 75,577 US firms and found that keeping records of crashes and disciplining or educating drivers involved in “preventable” crashes are effective safety practices.¹⁵ An analysis of the opinions of safety officers in Spanish firms (various industries) found that operational control of safety procedure compliance and equipment audit/maintenance is the most important element in a safety management system.¹⁶ Lantz (1994) found a strong relationship between quality maintenance and inspection procedures and a decline in accidents related to defects in US trucking firms.¹⁷

Learning from incident and risk assessment is also beneficial for improving safety performance. In a study of four Portuguese chemical companies and one aviation company, Silva and Lima¹⁸ found that of the companies examined, the one that most fully used information learned from the analysis of accident factors had lower accident rates. And Phimister et al conducted 106 interviews of safety managers in 20 US chemical companies and concluded that analyses of near-miss events are beneficial to accident prevention.

Demonstrable management commitment to safety has repeatedly been found to be a significant factor in companies that are actively and effectively managing safety. Mearns et al (2003) researched safety culture, safety management practices and behaviour and accident outcomes in 13 offshore installations operating on the UK continental shelf. They found that management commitment is a key predictor of lower rates of accidents. Seo et al (2004)¹⁹ tested management commitment, as an important indicator of safety and safety culture (n= 620 safety managers in US grain companies) and management commitment was found to be positively correlated with other safety culture factors and is an important safety influence. Silva and Lima (2005)¹⁸ found that organisations with the same ‘espoused’ safety values can have different safety “values in use” and that establishing safety as an organisational value requires full management and supervisor commitment to safety to achieve good safety outcomes.

While management commitment is fundamental, shared values for safety create and maintain a strong safety climate. For example Newnam et al²⁰ found that the influence of supervisors and fleet managers interacted such that drivers were more motivated to drive safely if they perceived both their supervisor and fleet manager to value safety. Fogarty and Shaw (2009)²¹ emphasise that while management commitment to safety is a pervasive influence in all safety

¹⁴ Vredenburg, A. G. (2002). Organizational safety: Which management practices are most effective in reducing employee injury rates? [doi: DOI: 10.1016/S0022-4375(02)00016-6]. *Journal of Safety Research*, 33(2), 259-276.

¹⁵ Moses, L. and Savage, I. (1994). The effect of firm characteristics on truck accidents. *Accident, Analysis and Prevention*, 26(2), 173-179.

¹⁶ Basso, B. Carpegna, C. Dibitonto, C. Gaido, G. Robotto, A. Zonato, C. (2004). Reviewing the safety management system by incident investigation and performance indicators. *Journal of Loss Prevention in the Process Industries*, 17, 225-231.

¹⁷ Lantz, B. (1994). *Development Of A Predictive Model To Ascertain Probable Safety Ratings For Motor Carrier Firms: A Nation-Wide Perspective*. Fargo, North Dakota 58105: Upper Great Plains Transportation Institute, North Dakota State University.

¹⁸ Silva, S. Lima M. (2005). Safety as an organisational value: Improving safety practices. In Kolowrocki. (Ed.), *Advances in Safety and Reliability*. London: Taylor & Francis Group.

¹⁹ Seo, D., Torabi, M, Blair, E, and Ellis, N. (2004). A cross-validation of safety climate scale using confirmatory factor analytic approach. *Journal of Safety Research*, 35, 427-445.

²⁰ Newnam, S., Griffin, M. A., & Mason, C. (2008). Safety in work vehicles: A multilevel study linking safety values and individual predictors to work-related driving crashes. *Journal of Applied Psychology*, 93(3), 632-644

²¹ Fogarty, G. J., & Shaw, A. (2009). Safety climate and the Theory of Planned Behavior: Towards the prediction of unsafe behavior. *Accident Analysis & Prevention*

behaviours, this influence is mediated by other factors such as group norms and work pressure.

In summary, much research in work related safety has focuses on safety culture and safety risk factors and interventions. This has been helpful to guide regulators and employers, albeit in a piecemeal way.

SAFETY MANAGEMENT REGULATION, STANDARDS, MODULES AND SYSTEMS

Heavy trucks and drivers in Australia are subject to compliance with a range of State regulations, but unlike transport companies in the United States, Australian goods transport companies are not bound by the requirement to register as a transport company. However, Chain of Responsibility provisions in Part 4 of the model Road Transport Reform (Compliance and Enforcement) Bill provide that consignors, packers, loaders and receivers may be held legally liable for breaches of heavy vehicle mass, dimension and load restraint requirements, in addition to drivers and vehicle operators.²²

The nature of Australian heavy truck regulation has been evolving somewhat in recent years from specific prescriptive rules towards requirements for operators to demonstrate good safety management systems and practices. The approach to driver fatigue regulation, for example, enables operators to choose between three sets of safety management requirements enabling them to operate within corresponding driving and rest hours.²³

The history to this approach was an experiment with a Fatigue Management Program introduced in Queensland in 1996. This pilot project was premised on the need to adopt ‘performance-based’ safety management, rather than a rule-based approach. Those heavy vehicle transport operators who sought to be accredited under the “Fatigue Management Program” pilot were required to demonstrate that their scheduling and rostering processes took into consideration:

- each driver’s previous working time, schedule and roster;
- safe driving time and work activities;
- vehicle suitability and roadworthiness;
- identification and management of fatigue risk factors;
- driver readiness, health and competence on the day;
- use of relief drivers and sub-contractors; and
- driver involvement and flexibility in the trip schedule.

An evaluation of the pilot program indicated that this less prescriptive approach can result in road safety and business improvements, including less use of “stay-awake” pills, healthier lifestyles of drivers, more awareness of fatigue risks and strategies to overcome the risks, as well as improved business competitiveness, greater flexibility to meet customer demands, better equipment utilization, safety outcome improvements and better staff morale²⁴.

²² Compliance and Enforcement (NTC) <http://www.ntc.gov.au/viewpage.aspx?Arealid=35&DocumentId=1419> (updated February, 2009 – accessed 9 Jan, 2011)

²³ Heavy Vehicle Driver Fatigue Reform: which option suits you, NTC Information Bulletin, July, 2008 http://www.ntc.gov.au/filemedia/Publications/HVDF_WhichOption_July08.pdf (accessed 9 Jan, 2011)

²⁴ Mahon, G. and Cross, T, *The Fatigue Management program - alternatives to prescription*, in *Queensland Mining Industry Health & Safety Conference 2001*.

This program was then modified to become a module in an industry accreditation scheme, TruckSafe, and in the National Heavy Vehicle Accreditation Scheme (NHVAS)²⁵.

But while there is some evidence of improved safety performance through the process of accreditation²⁶, these findings must be treated with some caution. In reviewing Australian heavy vehicle accreditation schemes, Baas advised “very little research has been undertaken on how company management influences driver behaviour and road safety”²⁶. Moreover, the causal direction of safety performance needs more scrutiny as it may be that companies with good safety management practices are more attracted to becoming TruckSafe accredited and may have performed well whether accredited or not²⁷. A selection of accreditation and industry codes with strengths and weaknesses of each scheme is provided in Appendix A.

In effort to work within resource constraints but cover a broad spectrum of corporate safety programs, some nine schemes were examined in detail against the assessment criteria:

Proactive Safety Management
Safe System Principles
Promotion and Acknowledgement
Provide Generic Guidance Statements
Incorporation of ISO 39001
Adaptability to Australian Context
Evaluation and Monitoring

These criteria are defined on pages 6-7 above.

In addition, these schemes were examined with reference to the feasibility of the initiative for the NTC to advance it in Australia, adaptability as a national corporate road safety program, and the advantages and disadvantages of the scheme.

The nine initiatives examined are: AS/NZS 4801:2001, Basic Aviation Risk Standard (BARS), Driving for Better Business (DfBB), European Charter for Road Safety, National Heavy Vehicle Accreditation Scheme (NHVAS), NHVAS Western Australia, TruckSafe, Western Australia Office of Road Safety Partnership Program and Queensland Department of Transport Workplace Fleet Safety Audit. The additional programs that were examined in brief are: National Logistics Safety Code, Network of Employers for Traffic Safety (NETS), Land Transportation Safety Recommended Practice, Safety in Transport (SIT), Fleet Safety Benchmarking Workshops, Canadian National Safety Code, Responsible Care, National Rail Safety Guideline.

While the scope of the project did not allow a full assessment of the additional programs, descriptions of these programs provide contrasting elements of good practice to be considered further. The nine initiatives examined in detail were chosen for their direct relevance to the NTC’s objectives.

The intention is to highlight the elements of good value for the development of a national corporate road safety program through stakeholder consultation and work by the Project Team.

²⁵ See <http://www.ntc.gov.au/viewpage.aspx?Areaid=35&DocumentId=108> for details of all modules of NHVAS

²⁶ Baas, P., *Analysis of the Safety Benefits of Heavy Vehicle Accreditation Schemes*, 2008, AustRoads Incorporated: Sydney

²⁷ Mooren, L. and Grzebieta, R., Review of Alternative Compliance Schemes, TRB Annual Meetings, Jan, 2011

AS/NZS 4801:2001 AUSTRALIA/ NEW ZEALAND SAFETY MANAGEMENT SYSTEMS

Overview

A Joint Australian/New Zealand Standard was prepared by Joint Technical Committee SF-001, Occupational Health and Safety Management. It was approved on behalf of the Council of Standards Australia on 14 August 2001 and on behalf of the Council of Standards New Zealand on 31 August 2001. It was published on 15 November 2001.²⁸

The objective of this Standard is to set auditable criteria for an occupational health and safety management system. The Standard is a specification that aims to encompass the best elements of such systems already widely used in Australia and New Zealand. It includes guidance on how those criteria may be achieved. The Standard should not be relied upon to ensure compliance with all legal and other obligations.

Compliance with this Standard may not necessarily meet OHS legal obligations within either New Zealand or Australia and has been designed as an informative standard rather than a regulatory one. The Standard has also been designed as a systematic framework for engaging on a voluntary compliance basis.

AS/NZS 4801 is a specification standard that establishes a framework primarily for enabling independent external audits and reviews of an organisation's Occupational Health and Safety Management System (OHSMS), but it can also be used as a framework for internal audits.

AS/NZS 4801 specifies the framework against which external auditors will assess an OHSMS. However, these audits and reviews would not be sufficient to provide an organisation with the assurance that its performance not only meets, but will continue to meet, its ethical, legal and policy requirement.

These linked standards have been written to be applicable to all types and sizes of organisations and to be generic enough to accommodate diverse geographical, cultural and social conditions, as well as the multiplicity of OHS legal jurisdictions. Thus two organisations carrying out similar activities but having different OHSMS and performances may both conform to the requirements established in AS/NZS 4801.

This Standard specifies requirements for an occupational health and safety management system (OHSMS), to enable an organisation to formulate a policy and objectives taking into account legislative requirements and information about hazards or risks. It applies to those hazards or risks over which the organisation may exert control and over which it can be expected to have an influence. It does not state specific OHS performance outcomes.

The success of an OHSMS depends on commitment from all levels and functions within an organisation, especially from senior management.

²⁸ NCS International, AS/NZS 4801:2001 Self Assessment Checklist, 2002

The Standard has also developed a Self-Assessment Checklist to assist organisations to meet their requirements within this standard. This checklist presents the requirements of AS/NZS 4801:2001 as questions and can be used as an effective tool for implementing the safety management system and for self-assessment of the system.

The success of the standard depends on commitment from all levels and functions within an organization, especially from senior management. The standard has been designed to assist organisations to:

- set out OHS policy and objectives;
- establish, assess and review the effectiveness of procedures which give effect to OHS policy and objectives;
- achieve conformity with OHS policy and objectives of the organisation; and
- demonstrate such compliance to others (via self-declaration or certification/registration as appropriate)

Proactive Safety Management – *is it focused on the reduction of death and serious injury that requires organisations to examine their own road safety data and therefore creates a better understanding of their road safety risks and issues?*

The Australian New Zealand Safety Management is based on a systematic progress of policy and procedural development for the use of recognising the risks or hazards and the implementation of mitigating measures but does not state specific performance outcomes. If any organisation was to implement this Standard, the policy and procedural guideline would require an organisation to examine their own operations and also their sphere of responsibility to the greater community. Although the Standard is very generic in the terminology and does not specify road safety specifically, the risk management process would allow an organisation to undertake some level of risk management for road safety. The extent of the road safety application of risk management will depend on such factors as the OHS policy of the organisation, corporate motivation, the nature of its activities and the conditions in which it operates. Therefore the level of attention that road safety received from the organisation would be dependent on the organisation knowledge to evaluate their exposure of risk in this area as an area requiring risk management.

Safe System Principles – *Does it take into account human propensity to err and attempt to safe guard the system from causing injury through design and management practices?*

The Australian New Zealand Safety Management implements a systematic approach to safety although it is not directly related to road safety or the Safe Systems approach to road safety. If an organisation was motivated and safety aware it is possible that an organisation will risk assess and manage, vehicles, speed, road users and the road and roadsides or the interconnectivity between these elements in relation to managing their road safety as an organisation.

Promotion and Acknowledgement– *Does it ensure that organisations can be promoted both internally and externally as well as allow opportunities for organisational self-promotion?*

The Australian / New Zealand Safety Management Standard is a certifiable standard administered through a third party auditor which has been registered and recognised. This administrated certificate will document and fully detail the scope of an organisation's certification in terms of:

- Names and addresses of all locations covered by the certification;
- Achievement of certification to the relevant standard(s) or code(s) of practice;
- The capability statement (range of products, services, and activities) for each location covered
- By the certification; and
- Any specific exclusions from the scope of certification

The owner or organisation of the certificate can also use the logo of the certification on promotional and commercial tendering materials.

There does not appear to be one centralised management or administration for organisations to network with other certified organisations.

Provide Generic Guidance Statements – *Does it provide guidance based on the Safe System approach to Road Safety supported by detailed documentation that supports road safety best practices – Statements need to ensure engagement from senior management to implementation on the ground.*

The AS/NZS 4801:2001 Australia/ New Zealand Safety Management System has been designed as a generic guide for the development of any organisations management of safety which can be adapted from management through to implementation. The standard has been written to be applicable to all types and sizes of organisations and to be generic enough to accommodate diverse geographical, cultural and social conditions, as well as the multiplicity of OHS legal jurisdiction

The guidelines do not prescribe the type or format or style of OHSMS that should be used. Therefore, two organisations carrying out similar activities but having different OHSMS and performances may both conform to the requirements of the generic standard. The Standard also does not specify any performance outcome; rather it uses guiding questions to assist an organisation reach a positive outcome.

The generalness of the standard does provide the opportunity and flexibility for the organisations to implement their own specific initiative pending the organisations motivation and risk adversity. Within the generic guidelines provided in this risk management system the standard does engage the principles and methodology of Corporate Social Responsibility, Occupational Health and Safety regulation (although not regulatory compliance).

Incorporation of ISO 39001

The AS/NZS 4801:2001 Australia/ New Zealand Safety Management Systems does not include any reference to the draft ISO 39001. However, as a standard it may contribute to the evolution of an Australian/New Zealand road safety standard incorporating the key elements of ISO 39001.

Adaptability to Australian Context – *Is the initiative possible as a National Program?*

The AS/NZS 4801:2001 Australia/ New Zealand Safety Management System has been design specifically for the use in New Zealand and Australia as a bilateral national program; therefore it has been appropriately crafted for the adaption of Australian companies of all sizes and industries.

Evaluation and Monitoring - *progress and risk assessments for on-going improvement*

The AS/NZS 4801 Safety Management System has been designed as a framework primarily for enabling independent external audits and reviews of an organisation's OHSMS, but it can also be used as a framework for internal audits and as a guide to assist organisation in undertaking a robust risk management process.

The Standard is based on a Continuous Improvement model as are other standards such as ISO 9001. It is a requirement for certification that the organisation be audited by an independent external auditor. The internal assessments and continuous improvement can be limited depending on the organisations motivation and what has motivated them in the first place to engage in the risk management system.

Further evaluation focused on the assessment of this program includes the following.

Feasibility of Initiative in an Australian Context

It would not be recommended that the NTC undertake the AS/NZS 4801:2001 Australia/ New Zealand Safety Management System as a leading initiative for corporate road safety uptake. Although this safety management standard has a strong correlation to the draft ISO 39001 from the aspect that both are management systems that address risk management and are based on a continuous improvement methodology that require both internal and external auditing to be undertaken there is no relation to the implementation of road safety.

The AS/NZS 4801:2001 Australia/ New Zealand Safety Management Systems methodology as a guiding document to assist organisations to risk manage and implement risk management mitigation strategies in a larger Australian road safety context could be of some benefit.

Advantages of Initiative

The AS/NZS 4801:2001 Australia/ New Zealand Safety Management System advantages include the adaptability to an Australian context. The Standard was developed by New Zealand and Australian government in a joint approach and has also been endorsed by both countries. The Standard provides a systematic process of risk management principles which complements regulatory legislation, although it does ensure organisation compliance to legislation. The Standard is also self-funded by organisations, and has been endorsed for the Australian government; therefore the standard does not require government funding or require on-going political support. The Standard is also quality controlled through the requirement for an independent third party audit to obtain the certification of obtainment.

Disadvantages of Initiative

The AS/NZS 4801:2001 Australia/ New Zealand Safety Management Systems major disadvantage is the Standard has been developed for the primary propose of auditing organisations safety management systems. But the initiative is lacking in resources and supporting documentation which promote knowledge transfer of how to be compliant and certified. The Standard also lacks coordination or central management of compliant organisations; therefore the opportunity for networking and promotion of large corporate support for the Standard or the promotion of corporate social responsibility is missed.

Conclusion

The AS/NZS 4801:2001 Australia/ New Zealand Safety Management System is not recommended as a strategy for implementing a national road safety initiative. Although the Standard appears to be lacking in central management and coordination there are some elements of the initiative that are worth noting as potential elements for inclusion in a national initiative. These include:

- the requirement for an independent third party auditing process
- a federal government endorsed or supported management standard or system for road safety
- a systematic process of risk management principles which complements regulatory legislation, and
- a management standard or systems based on a continuous improvement model

FLIGHT SAFETY FOUNDATION - BARS – BASIC AVIATION RISK STANDARD

Overview

The Flight Safety Foundation was formed in 1947 to pursue the continuous improvement of global aviation safety. The foundation meets this objective through research, auditing, education, advocacy and publishing.

The foundation has a membership that includes more than 1,200 organisations and individuals in 150 countries. It is based in Alexandria, Virginia, U.S., has a regional office in Melbourne, Australia, and is affiliated with associate organisations in Japan, Russia, Southeast Europe, Taiwan, China and West Africa.

The foundation is an independent, impartial and non-profit international membership organisation. It is in a unique position to identify global safety issues, set priorities and serve as a catalyst to address the issues.

The Basic Aviation Risk Standard was developed by the Flight Safety Foundation to provide companies specifically engaged in the resource sector with a standard to assist in the risk-based management of aviation operations supporting their activities.²⁹ The Standard has been designed to complement and not surpass any national and international regulations pertaining to aviation operations.

The Basic Aviation Risk Standard is presented in a risk-based format to emphasise the relationship between threats to aviation operations, associated controls and applicable recovery/mitigation measures. This methodology is commonly used within the resources industry, therefore the format is well understood and easily adaptable with current processes.

The risk-based methodology is further intended to assist all company or contractor personnel engaged in coordinating aviation activities to manage and understand the aviation risk to their operation. The standard has also been developed as an auditing process to evaluate aviation operators to ensure regulatory compliance and the safety of employees within the resource industry.

As a basic standard, all companies and aircraft operators are encouraged to go beyond the minimum standard set out in the Basic Aviation Risk Standard and further risk-assess all controls to the level of detail they consider necessary for their individual operations.

This program has been developed to provide the following outcomes:

- primary reference for the review and approval of aircraft operators supporting companies engaged in the resource industry
- Leverage organisations within both private and public sectors for the delivery of aviation safety to both management, staff and or contractors
- Provide a basic standard which is holistic and supplements any national or international regulations
- Provide a basic industry standard that is in a format and methodology that is understood by, and adaptable within, industry

²⁹ Flight Safety Foundation, Basic Aviation Risk Standard, http://flightsafety.org/files/bars_v3.pdf

Proactive Safety Management – *Is it focused on the reduction of death and serious injury that requires organisations to examine their own road safety data and therefore creates a better understanding of their road safety risks and issues?*

The Basic Aviation Risk Standard is a systematic alternative compliance initiative designed to ensure that all engaged in the aviation operations within the resource industry meet a minimum safety requirement. The program is a well-developed proactive management process which has drawn on industry knowledge and resources to ensure adaptability for industry. The Basic Aviation Risk Standard also creates a need for the related aviation industries to be proactive in the documentation and implementation of the standard due to the leverage created through industry demand. Although the program is not related to road safety the standard does require the related aviation industries and staff to examine their own individual situations and data therefore creating a greater understanding of the risks as well as having resources which provide proactive steps to prevent the risks from occurring.

Safe System Principles – *Does it take into account human propensity to err and attempts to safe guard the system from causing injury through design and management practices?*

The Basic Aviation Risk Standard has not formally adopted Safe System principles but the methodology of a systematic process designed to forgive human error and prevent injury is strongly implied.

The Standard is a risk-based format to emphasise the relationship between threats to aviation operations, associated controls for the risk exposure and applicable recovery/mitigation measures which prevent the risk in the first place, all of which, correlates with the methodology of Safe System approach to road safety.

Promotion and Acknowledgement– *Does it ensure that organisation can be promoted both internally and externally as well as allow opportunities for organisational self-promotion?*

The Flight Safety Foundation is a member-based organisation that provides numerous opportunities for promotion and recognition through its multiple publications, member recognition on the web, annual awards, seminars, white papers and resources for all members.

The following is a sample of the promotional and acknowledgement opportunities:

- Signed certificate of commitment
- Plaque of commitment
- 14 Annual Awards
- Organisations Name of Flight Safety Foundation Membership List
- Opportunity to publish Manuscripts or Technical papers in the Flight Safety Monthly Mag Subscription, AeroSafety World Magazine
- Opportunity for best practice case studies publications
- Receive member-only mailings throughout the year of special reports
- Access to a resource safety database or library
- Discounts to attend Flight Safety Conferences and Seminars

Provide Generic Guidance Statements – *Does it provide guidance based on the Safe System approach to Road Safety supported by detailed documentation that supports road safety best*

practices? – Statements need to ensure engagement from senior management to implementation on the ground.

The Basic Aviation Risk Standard, is a basic standard that has been designed to give a general over view of all common threats, controls and risk mitigation processes which face all aviation companies engaged with the resource industry.

The general guiding statements have been designed into a clear process model using a methodology that is well understood by the targeted industry type. As mentioned previously in this paper the Basic Aviation Risk Standard is not a road safety based initiative although there are correlations between the Safe System and this standard as both are generic risk mitigation models.

Incorporation of ISO 39001

The Basic Aviation Risk Standard has no incorporation with ISO 39001 as it is not a road related initiative

Adaptability to Australian Context – *Is the initiative possible as a National Program?*

This Program is currently being implemented in an Australian context, and the Flight Safety Foundation has an Australian office based in Melbourne. The standard has also been designed to align to national and international regulations therefore the standard is adaptable to any Australian state, territory or federal regulation.

Evaluation and Monitoring – *Does it measure progress and include risk assessments for on-going improvement?*

The Basic Aviation Risk Standard has been designed as a continuous improvement and auditing program. This is supported by the vision statement, “*Pursuing the continuous improvement of global aviation safety and the prevention of accidents*”. The Program does require periodic organisational reviews of all aviation undertakings for any organisation engaged in aviation on behalf of a resource industry related organisation. The required reviews and audits include equipment maintenance, pilot flight hours and on-going training, staff training, fuel storage and use, safety and safety assessments and all ground and air operations. The program requires both internal and external auditing be undertaken, thus ensuring that the standards are implemented to the required specification and competences. The Flight Safety Foundation also provides qualified expertise for any organisation requiring external auditing.

Further evaluation focused on the assessment of this program includes the following.

Feasibility of Initiative in an Australian Context

The methodology of the Basic Aviation Risk Standard, (threats, controls and risk mitigation to prevent incidents from occurring) could be feasible in a larger Australian context as supporting materials for the appropriate industry. The Standard does require a central management and governance structure from which the program is implemented, but it is believed that this should be led from within the appropriate industry or industry peak body. The NTC would be the appropriate endorsing body for this to take place at a National level but the Standard would not be the appropriate holistic model required for an all-inclusive corporate road safety initiative.

Adaptability to Australian Context

The Flight Safety Foundation has its headquarters in Virginia, USA and has a regional office in Melbourne, Australia. As the regional office is based in Australia it is feasible that the standard is being implemented in an Australian context. As the Basic Aviation Risk Standard is sustained through membership fees, the adaptability and sustainability of this model would also need to be further market tested.

Advantages of Initiative

There are numerous advantages to this program as the Basic Aviation Risk Standard provides clear pictorial process to risk management. The standard identifies threats, controls and risk mitigation of the most commonly experienced issues with the aviation industry. The standard appears to be well supported by main stream aviation industries and also the major resource industry, therefore creating an industry leverage or expectation that all organisations engaged within the resource industry which utilise aviation needs would participate with the program.

The Basic Aviation Risk Standard is also a member funded and non for profit initiative therefore the program is not reliant on third party funding, such as state, territory or federal funding to ensure sustainability. Its owner, the Flight Safety Foundation is a creditable international foundation that enhances the Basic Aviation Risk Standard credibility within industry and organisations.

Disadvantages of Initiative

The major disadvantage for the Basic Aviation Risk Standard being adapted for the corporate road safety context is that the methodology is not widely understood outside of the resource industry; therefore implementation of this into a road safety context would require extensive knowledge transfer. The Program requires ongoing membership funding to ensure sustainability therefore the program would need to have strong industry motivation and support to ensure longevity.

Conclusion

The Flight Safety Foundation, Basic Aviation Risk Standard, exhibits some interesting elements to the methodology of risk management and risk assessments. These elements include the engagement of external auditors, simplistic assessment process for risk mitigation, holistic risk management that is consistent with the Safe System approach to Road Safety. This standard, in its current form is not a framework for a national corporate road safety program. But it is a standard that could be used by the resource industry, as the methodology is well understood by industry, as a specific program that may interact with a greater corporate wide initiative. The Basic Aviation Risk Standard is based on a not for profit member based model which benefits from being politically neutral and is non-reliant on government funding. The risk of being a member only funded program is that it needs to ensure that there is adequate motivation and industry support to ensure that the program is sustainable.

ROADSAFE (UK) – DRIVING FOR BETTER BUSINESS

Overview

In 2005 The Secretary of State for Transport asked the UK Motorists' Forum to undertake a study of how employers could be encouraged to give a higher priority to road safety for those who drive cars or vans for business purposes.

Their key recommendations were:

- *The need to make employers aware that workplace Health and Safety Legislation applies equally to work-related travel and should be applied in the same way as in the workplace.*
- *The need for a systematic programme of outreach designed to coordinate a network of employer champions drawn from public, private and voluntary sectors who will work through employer networks and associations to deliver awareness.*

The research from the study also concluded that:

- *this is an area where some employers have already achieved remarkable reductions in accidents through the introduction of relatively simple measures;*
- *there is a strong business case for employers to improve safety in this area;*
- *there is ample advice on good practice which will help employers achieve major improvements* The missing element appears to be awareness and management focus.

The study therefore recommended a number of measures to address this aspect:

- *using government funded advertising and major events as platforms to extend awareness; and*
- *a Government review of its existing guidance in this area to assess its effectiveness and market penetration.*

The research also recommended that the initiative is structured in such a way as to require no primary legislation and have a cost that equates to the saving of half a life per annum (£500,000.00). Nor should the initiative impose any greater regulatory burdens on businesses. The research also recommends the extension of existing health and safety processes to cover work related travel.

Formally launched in April 2007, Driving for Better Business was a result of these recommendations.³⁰ The original programme of outreach has further developed into a campaign to recruit more organisations to champion Work Related Road Safety and engage with an ever-increasing network of other employers.(Forum, 2005) From the outset of the Driving for Better Business the Secretary of State for Transport delegated the development and management of the business-to-business outreach program to RoadSafe under contract to Department for Transport.

In April 2009, following a short pilot, Driving for Better Business was born and developed into a national campaign. Subsequently the Department for Transport awarded RoadSafe, a private registered charity organization, a further 3 years of funding to run the campaign with a view to the program becoming fully self-funded by May, 2012.

Currently, the Department of Transportation is discussing with RoadSafe the possibility of an earlier transition to a commercially run program.

³⁰ <http://www.drivingforbetterbusiness.com/>

The aim of the campaign is to raise awareness of the importance of work-related road safety in the business community and public sector by using advocates drawn from these communities to promote the business benefits of managing it effectively.

Driving for Better Business is supported and guided by a steering group and a stakeholder forum, consisting of experts in Work Related Road Safety, business leaders, representatives of the transport industry and the Department of Transport and its agencies.

Proactive Safety Management –*Does it focus on the reduction of death and serious injury that requires organisations to examine their own road safety data and therefore creates a better understanding of their road safety risks and issues?*

Driving for Better Business is based on a set of policies and principles covering management, road users, vehicles and roads and strongly promotes a generic standard of attainment called “Champion”. Currently, of the 7300 members, 52 have achieved Champion status.

To become a business champion, an organisation must complete a case study to be made available online, <http://www.drivingforbetterbusiness.com>, and also have:

- A ‘top down’ commitment to managing work related road safety;
- A positive attitude towards safety, reflected in the behaviour of all its employees (including directors, line managers, contractors and sub-contractors), as part of its ‘safety culture’;
- Formal policies and practices in line with the Health Safety and Environment / Department of Transport ‘Driving for Work’ guidance, including internal reporting and measurement mechanisms;
- An honest account of its safety record prior to implementing a risk management system;
- A willingness to present the organisations road safety efforts at events and seminars;
- The time and inclination to network with key industry figures;
- A willingness to talk to the media.

Once a company has obtained this “Champion” status, further resources are available. The campaign’s “Champions” are used to promote the financial, legal and moral reasons for organisations across the public and private sectors to invest in at-work driving safety. As such, they play a key role in sharing best practice and information with their peers and their customers.

The Driving for Better Business also provides the following resources which are for all organisations and do require an organisation to examine their data and manage the risks of road transport in a proactive manner.

The provided resources and generic guidance statements include:

- Overall Policy Statement: A Driving for Work Policy should be implemented if the organisation employs more than five employees.
- Risk Assessment: A risk assessment is nothing more than a careful examination of what 'at work' activities can cause harm to people.
- Minimising Risk: Through Control Measures control the risk, to reduce the possibility of harm to employees, by applying basic control measures.
- Rules and Procedures: Implement rules and procedures for your employees to aid in eliminating the hazards.

- **Data Recording:** Employers of five or more employees are required to record the significant findings of their risk assessment.
- **Audit, Communication and Review:** Need to monitor and review organisations assessment to ensure that the risks to those who drive for work, and others, are suitably controlled.

Safe System Principles – *Does it take into account human propensity to err and attempt to safe guard the system from causing injury through design and management practices?*

The Driving for Better Business does implement a systematic management approach to road safety similar to the Safe System methodology although the Safe System does not appear on the website or within the policy or procedural information provided. The Driving for Better Business and the “Champion” assessment process does require organisations to assess the risks associated with vehicles, users, and roads and does promote the need for education and a corporate safety culture as well as providing resources to undertake this assessment.

Promotion and Acknowledgement– *Does it ensure that organisation can be promoted both internally and externally as well as allow opportunities for organisational self-promotion?*

The Driving for Better Business offers recognition to the organisations that achieve the Champion status. The promotion and acknowledgement of the Champion companies is achieved through the publication of the organisations case study through the Driving for Better Business website, Champion status certification presented to the organisation and opportunities to present the individual organisations road safety efforts externally. As the Champion status constitutes the central element of the Driving for Better Business campaign other organisations which are still to achieve the Champion status don’t appear to be promoted or recognised.

A recent survey of Champions found 84% of these members report that being recognised as a “business champion” has brought extra value to their businesses.

Provide Generic Guidance Statements - *Guidance based on the Safe System approach to Road Safety supported by detailed documentation that supports road safety best practices? – Statements need to ensure engagement from senior management to implementation on the ground.*

The Driving for Better Business does provide generic policy and procedural guidelines and as a part of the Champion assessment undertaken by RoadSafe. The participating organisation must ensure that their policy and procedures align to the recommendations set out by the Driving for Better Business. The main generic guidelines cover Fleet Safety and Occupation Road Safety more so than Safe System management but there are common principles underlying the Fleet Management guidelines and Safe System approach to road safety. The Driving for Better Business guidance statements are described in subsection, “Proactive Safety Management.”

The general guidance resources ensure that a holistic approach to driving risk management is undertaken. These guidelines are generic and non-prescriptive and include senior management commitment, implementation of programs, and how to review the outcomes achieved.

Incorporation of ISO 39001

The Driving for Better Business initiative has no mention of the ISO 39001, but the program was commissioned by the Secretary of State for Transport in 2001 which is well before the ISO 39001 draft was conceptualised. It is worthy to note that although

the ISO draft has been in circulation for some time there has been no updated references in the Driving for Better Business resources.

Adaptability to Australian Context – *Is the initiative possible as a National Program?*

The Driving for Better Business does present some elements that could be adapted into an Australian context. A unique element is that The Secretary of State for Transport has provided a grant to a private sector registered charity, RoadSafe, to deliver the initiative on behalf of the Government. Although this approach is common in the United Kingdom for the delivery of government programs this could be a consideration for the delivery of a road safety program in Australia but it is recommended that further research to the benefits of this approach be considered.

The Driving for Better Business has also been developed as an initiative that is designed to prevent imposing greater regulatory burdens on business as it does not recommend a swathe of new requirements, merely the extension of existing health and safety processes to cover work related travel.(Forum, 2005)

Although it is believed that some of the elements would be adaptable into an Australian context, there are also numerous elements that would not easily transfer such as the recommendation of a specific fleet policy and procedure as most states and territories have their own individual recommendations for fleets well established. Moreover, due to the varying Worksafe and Occupation Health and Safety regulations across Australia it would become a complex task to develop an initiative that would be in harmony with all States and Territorial regulations.

Evaluation and Monitoring – *Does it measure progress and include risk assessments for on-going improvement?*

At member level the Driving for Better Business campaign provides some high level guiding points to assist organisations in their development of evaluation and monitoring. The information does cover the main headings of Audit, Communication and Review but if the organisation was lacking in knowledge as to how to implement such undertakings then it would be quite possible to lose focus on the required delivery and outcomes.

The Driving for Better Business Champion process does require organisations to implement a case study and be subject to road safety evaluation and monitoring. RoadSafe also audits the organisations submitted case study ensuring the required elements are included.

It is also noteworthy that no periodic recommendations for on-going monitoring or reviews were included in the information available. The following outlines the recommendations for the organisations evaluation and on-going monitoring:

For example, DfBB involves evaluation audits. Information is collected on the efficiency, effectiveness and reliability of the road safety system, and plans are made to correct any shortcomings. The audit ensures that appropriate management systems are in place; risks are being controlled; and control measures are in place.

In addition, the DfBB program Strategic Steering group reviews campaign reports quarterly. The four key performance measures are

1. Size of the pool of Business Champions and associated case studies available to the program;
2. Size of the network supporting the program;
3. Activity generated through the network; and
4. Scale of sponsorship.

Further evaluation focused on the assessment of this program includes the following.

Feasibility of Initiative in an Australian Context

The initiative has been designed specifically for the British fleet and occupational road safety management that only has a singular legislative ruling on Occupational Health and Safety and Workplace Safety regulations. The Driving for Better Business has also been designed as a specific initiative for organisational position (OHS, Fleet and Road Safety Managers) as a road safety implementation process and not as an overarching set of road safety principles and or Safe System methodology. Although some elements within the initiative, such as the promotion of “Champion” organisations and the ability to promote numerous individual organisations case studies in road safety are worthy considerations for any program which is to be developed Australia wide.

While the Driving for Better Business may be too complex to establish in Australia, a RoadSafe executive indicated an interest in partnering to assist the development of an Australian version of the program, or to build the program as an international one that links with DfBB and the US Network of Employers for Traffic Safety (NETS).

Adaptability as an Australian National Corporate Road Safety Program

It is believed that there is a limited adaptability of the Driving for Better Business into an Australian wide context. It could be possible to adapt the program into an aligned state or territory but as an Australian wide initiative it is not believed to be easily adaptable.

Advantages of Initiative

Driving for Better Business appears to have a strong support from a large cross section of industries in the United Kingdom including some multinational organisations such as Michelin and Johnson & Johnson. Other advantages include the support and opportunities which have been developed for publishing the individual organisations case study and possible safety record, which could lead to corporate opportunities or promotion. This can provide an effective business incentive to join the program and excel in demonstrating members prowess in safety management.

Disadvantages of Initiative

Driving for Better Business seems to lack in the availability of resources for knowledge transfer of road safety principles and methodology including Safe Systems approach to road safety. The other disadvantage is that organisations can only be recognised for their road safety efforts and implementation once the organisation has been audited and certified as being a Champion organisation. Moreover, there is no provision for removing the lower performing companies from the program.

Conclusion

In evaluation of the Driving for Better Business, it was found that there are potential opportunities or elements of the program that could be worthy for consideration in an Australian context although the overall program may be problematic as a nationwide program. While Driving for Better Business is currently reliant on funding by government it has an active and supportive corporate membership. Sustainability and longevity of the program after government funding is withdrawn could be questioned if the necessary support isn't secured through sponsorships and/or membership fees.

The program does promote holistic engagement from management to implementation and also requires an organisation to evaluate their exposure to the risks of road safety. It is also positive that the intention of the Driving for Better Business is not to impose more requirements on an organisation but rather be an extension current Occupational Health and Safety process.

EUROPEAN COMMISSION- EUROPEAN CHARTER FOR ROAD SAFETY

Overview

The following review has been undertaken from the European Commission, European Charter for Road Safety website, <http://www.erscharter.eu>.

The European Commission is playing a major role in the European-wide effort to make our roads safer. It wishes to afford all stakeholders (institutions, associations and companies) the opportunity to share ideas and practices across Europe, so that all stakeholders can learn from each other and gain inspiration as to how the road situation in Europe can be improved.

The European Charter is a very well established and coordinated initiative and has been effective since starting in 2005. The Charter has been created to engage corporate organisations through the signing and commitment to 10 principles and general values as well as strongly linking into organisations for the promotion of good corporate social responsibility.

By February 2010, nearly 1,700 organisations from all sectors had applied to become signatories of the European Road Safety Charter:

- 15% large companies and multinationals
- 23% small and medium companies
- 13% professional associations or federations
- 24% NGOs
- 16% regions and cities
- 9% institutions

They have made commitments to improve:

- User behaviour (61% of organisations)
- Vehicle safety: (13% of organisations)
- Infrastructure safety (18% of organisations)
- Professional transport (11% of organisations)
- Accidentology (12% of organisations)

The European Road Safety Charter offers European recognition to all entities that sign commitments, and this makes the road safety actions they wish to carry out more visible on a European level. Signatories' commitments and experiences in action are made accessible to the public via the Charter Website so that others may be inspired to carry out similar actions.

By organisations signing a commitment, participants can positively influence one or more of the following vital road safety issues that form a backbone to an integrated approach to road safety:

- **Vehicle Safety:** Innovation, safety devices, vehicle regulation policies.
- **Infrastructure Safety:** Safer road infrastructures, road safety impact assessment.
- **User behaviour:** Increased understanding, improved skills, and strengthened attitudes.

Signatories also have the peace of mind that they are actively contributing to reducing the number of accidents on the roads in the following fundamental ways:

- A reduction in the number of accidents.
- A reduction in damage to the environment through road safety action.
- A reduction in the cost of material damage (cars or roads).
- A reduction in loss of time due to road injuries.
- An improvement in public health through road safety action (e.g. reduction in drink driving).
- An increase in public attention to risk (e.g. road safety education).
- An increased sense of responsibility through training (e.g. campaign against uninsured drivers).
- Enhanced corporate social responsibility.

Proactive Safety Management – *Does it focus on the reduction of death and serious injury that requires organisations to examine their own road safety data and therefore creates a better understanding of their road safety risks and issues?*

The European Road Safety Charter is based on a set of core values and principles coupled with specific implementation initiatives submitted by the organisation. These values, principles and specific initiatives do require the organisation to examine their own operations and also their sphere of responsibility with other road users on the network

Core Values:

- the number of road accident victims in Europe at present is unacceptable, and the most effective possible measures need to be taken to reduce this number in the shortest possible time,
- coordinated action between the many parties having responsibility, in one capacity or another, is more likely to achieve the intended results,
- there are effective measures available to encourage road users to apply safety rules and even to take further measures, for example in order to reduce the exposure of users to the risks of accidents; and believing that the scope of such measures will be all the greater if a critical number of stakeholders commit themselves to them,
- the objective is to reduce the number of deaths on the roads by at least 50% by 2010,
- there is a sense of responsibility of the individuals and organisations concerned, and
- an awareness that actions to promote road safety entail extremely low costs compared with the human, social and economic cost of unsafe roads

PRINCIPLES

1. To take the measures within their sphere of responsibility to contribute to the abovementioned objective of reducing the number of road deaths.
2. To include road safety actions and safety performance measurement among their major objectives and principal decision-making criteria, in particular in the context of research activities, organisation and investment and in the more general framework of the organisation of professional activities, so as to draw up a veritable road safety plan.
3. To share with the competent bodies responsible for road safety technical and statistical information making for a better understanding of the causes of

- accidents, the injuries caused by accidents and the effectiveness of preventative and palliative measures.
4. To contribute to preventing road traffic accidents by pursuing high-quality actions in one or more of the following areas:
 - a. Initial and continuous driving training and information,
 - b. Motor-vehicle equipment and ergonomics,
 - c. Infrastructure designed to minimise the risks of accidents and their gravity and to encourage safe driving.
 5. To develop and implement technologies for reducing the consequences of road traffic accidents.
 6. To contribute towards the development of means of uniform, continuous and appropriate monitoring of compliance with traffic rules by persons acting in my name or under my authority and penalising any offenders in a uniform, rapid and proportionate way.
 7. To create a framework encouraging the introduction of continuous education actions and the rehabilitation of high-risk drivers.
 8. To endeavour to contribute, wherever possible, to a better understanding of the causes, circumstances and consequences of accidents in order to draw lessons from them in order to avoid their repetition.
 9. To contribute towards ensuring that effective and high-quality, medical, psychological and legal assistance is available for road accident victims.
 10. To accept post-evaluations by peers, in accordance with appropriate confidentiality rules, of the measures taken to improve road safety and, where necessary, to draw lessons from them to review the measures.

Safe System Principles – *Does it take into account human propensity to err and attempt to safe guard the system from causing injury through design and management practices?*

The European Road Safety Charter implements a systematic approach to road safety very similar to the Safe System methodology known as the “Five Pillars” of the Draft Decade of Action plan. The Five Pillars of road safety is endorsed by the United Nations Road Safety Collaboration.³¹ The Five Pillars are;

- a. Management capacity for road safety
- b. Safer road infrastructure
- c. Safer vehicles
- d. Safer road users
- e. Improved road crash trauma care and rehabilitation

Promotion and Acknowledgement– *Does it ensure that organisations can be promoted both internally and externally, as well as allow opportunities for organisational self-promotion?*

The European Road Safety Charter offers European recognition to the associations that have signed up, and makes the road safety actions they wish to carry out more visible on a European level via their website, newsletters and case studies.

Upon engaging with, and signing the European Road Safety Charter, organisations are authorised to use the European Road Safety Charter label and are promoted as road safety champions. The Charter also provides organisations with a European exposure to the organisations commitment and undertakings

Organisations receive a personalised kit containing the following:

³¹ http://www.who.int/violence_injury_prevention/road_traffic/rs_decade_of_action/en/index.html

- A European Road Safety Charter Certificate detailing their commitment
- A European Road Safety Plaque in recognition of their support of the charter
- A CD-Rom containing the European Road Safety Charter logo and graphics with instructions for use
- A copy of the European Road Safety Action Programme, published by the European Commission (2003)

The Charter also offers annual awards that are presented in Brussels

Provide Generic Guidance Statements – *Does it provide guidance based on the Safe System approach to Road Safety supported by detailed documentation that supports road safety best practices? – Statements need to ensure engagement from senior management to implementation on the ground.*

The European Charter does provide generic principles that can be adapted from management through to implementation and provide the opportunity and flexibility for the organisations to implement their own specific initiative for road safety. The Charter is very well established in providing resources and support for the fundamentals of Safe System, Corporate Social Responsibility and Road Safety Principles.

The Charter allows organisations to build upon current road safety knowledge and to exchange good practices through the Charters established communities on road safety issues. The Charter community concept also promotes an organisations initiatives as well as providing a knowledge-sharing platform which can assist and motivate other organisations with implementing road safety outcomes.

Incorporation of ISO 39001

The European Road Safety Charter refers to the draft ISO 39001 as a guiding document for member signatories to use or engage with. As the ISO 39001 is still a draft document it is problematic to truly evaluate the incorporation of this.

Adaptability to Australian Context – *Is the initiative possible as a National Program?*

The European Road Safety Charter could be adapted to an Australian context, although this may require a substantial investment and ongoing support both financially as well as human resourcing. Australia does have some history, both nationally and at a state level, of adapting European road safety strategies to an Australian context.

It is believed that the majority of the elements of the program would be transferrable at an Australian national level, although implementation would be reliant on extensive government funding and support due to the complexity and magnitude of this initiative.

Evaluation and Monitoring – *Does it measure progress and include risk assessments for on-going improvement?*

The European Road Safety Charter provides a guiding document for undertaking an evaluation of the organisations engagement, although this is a self-assessment and does not have a formalised external auditing system. However, the self-assessment process is comprehensive. The evaluation guide is a 10-step guide on how to evaluate engaged signatories commitment, including:

1. What can you do?
2. Examples of possible indicators
3. Can you act upon the indicated problem?
4. How much do you know about these problems? “Which of these problems can I tackle?”
5. Choose your possible fields of action
6. What is your goal?
7. Do you have a clear target?
8. Evaluation
9. Measure your goals
10. Evaluation technique

The Charter views the evaluation as a continuous process that allows organisations to enhance their understanding of their commitment(s) and knowledge of road safety through internal organisational investigation and data collection. The evaluation guide provides guidance to assist organisations to (re)position the actions as well as evaluate cost-effectiveness of the organisations undertaking.

The evaluation guidelines include assistance on how to obtain the most effective results and also provide a bench marking opportunity of like organisations who are engaged in the Charter. The evaluation guide provides practical tools measuring organisational goals and a list of tried and tested evaluation techniques to help organisations get the most out of their commitment to the Charter.

Although this evaluation process is comprehensive it is limited to internal auditing which may not always provide the best possible independent reviews and can be limited by motivation, time and knowledge of the individuals.

Further evaluation focused on the assessment of this program includes the following.

Feasibility of Initiative in an Australian Context

It is our view that the European Road Safety Charter could be feasible in a larger Australian context. The European Charter does have strong engagement with corporate organisations and appears to be well supported. The Charter requires a central management, knowledge transfer and governance structure in which could be fulfilled if a supportive political environment and funding were available. It is believed that further research regarding staging and implementation should be undertaken for this to be introduced in Australia.

Adaptability as an Australian National Corporate Road Safety Program

The European Road Safety Charter is being implemented as a multi-national initiative across Europe, therefore there is potential correlation to Australia implementing a similar initiative throughout the different states and territories.

Advantages of Initiative

There are numerous advantages to this program. It has an extensive proven track record in Europe, and has been recognised internationally as being part of international best practice for road safety engagement with external organisations on a mass scale. Other advantages include the support and opportunities that have been developed for knowledge sharing and transfer into external organisations.

Disadvantages of Initiative

The European Road Safety has little in the way of disadvantages. However, there is a lack of independence in the auditing of the evaluation and monitoring. This is a significant weakness of this initiative.

Conclusion

When evaluating the European Road Safety Charter it was found that there are numerous opportunities that could be implemented in Australia as a national program if supported both financially and politically. This initiative is a well-rounded program with excellent supporting documentation and opportunities for organisations to become engaged in road safety.

The development of the European Charter in an Australian context would be a considerable undertaking and would require a well-developed staging process of implementation with extensive engagement from all states and territories as well as key industry leaders. The potential outcome of developing a program of this magnitude in Australia would without doubt provide some very positive road safety outcomes for both organisations and community.

If such a program were to be developed, baseline and post implementation data should be collected in order to measure the effects of the initiative.

NATIONAL HEAVY VEHICLE ACCREDITATION SCHEME

Overview

The National Transport Commission's draft National Heavy Vehicle Enforcement Strategy aims to boost the effectiveness of three components of the Smart Compliance Program: effective & well-targeted enforcement practices, education & communication, and training.

The idea is to build an approach that features a balance between regulatory means of ensuring transport safety and encouragement of innovation by industry to find and implement effective safety management strategies.

In 1999 the National Road Transport Commission - now National Transport Commission (NTC) - worked together with State road authorities to a pilot an accreditation scheme in Mass Management in Victoria and another pilot in Maintenance Management in New South Wales. A third pilot in Fatigue Management was instigated in Queensland at the same time as a collaborative effort by the Queensland road authority and the Australian Trucking Association.

The results of these pilots were to formalize three modules of auditable management programs. Operating as a voluntary set of modules, New South Wales, Queensland, South Australia and Victoria offer regulatory concessions for those vehicles and operators who are accredited under them.

As at December, 2005 6,844 powered units were accredited under NHVAS Mass Maintenance, 11,856 were accredited under NHVAS Maintenance, and the NHVAS Fatigue Management module had not yet been made available.

Proactive Safety Management – *Is it focused on the reduction of death and serious injury that requires organisations to examine their own road safety data and therefore creates a better understanding of their road safety risks and issues?*

NHVAS is primarily focused on safety management although some elements are more about asset management. The Fatigue Management module encourages a risk management approach to driver fatigue.

Safe System Principles – *Does it take into account human propensity to err and attempt to safe guard the system from causing injury through design and management practices?*

NHVAS does not specifically mention the need to protect people from injury above all else. However, it calls for systemic safety management of vehicles and people.

Arguably the NHVAS mass management module does not necessary focus on injury prevention. And operators can carry an NHVAS logo without being accredited to the more safety-oriented modules.

Promotion and Acknowledgement– *Does it ensure that organisation can be promoted both internally and externally as well as allow opportunities for organisational self-promotion?*

NHVAS accreditation has potential promotion advantages, with regard to marketing to customers, improving relationships with enforcement authorities and improved staff morale. Under the Chain of Responsibility legislation, transport customers may well be attracted to engage companies that are voluntarily NHVAS accredited .

Provide Generic Guidance Statements – *Does it provide guidance based on the Safe System approach to Road Safety supported by detailed documentation that supports road safety best practices? – Statements need to ensure engagement from senior management to implementation on the ground.*

NHVAS promotes a process involvement from the senior management, drivers and others in the organisation. It also involves detailed documentation of management systems and has clear guidance statements. The Fatigue Management module of the scheme aims to encourage a risk-analytical approach to putting in place systems and programs for managing fatigue risk for drivers.

Incorporation of ISO 39001

By its nature NHVAS lends itself to incorporation of ISO 39001. The scheme is compatible to quality assurance processes and principles such as ISO 9000.

Adaptability to Australian Context – *Is the initiative possible as a National Program?*

This program is an Australian national program.
This type of program can perhaps be modified for light vehicle fleet operators.
However, it may be difficult to provide sufficient incentives for accreditation in this context.

Evaluation and Monitoring – *Does it measure progress and risk assessments for on-going improvement?*

The schemes require systematic auditing processes. For NHVAS, operators can choose from a list of certified auditors. The audit requirements are described on page 41.

However, few evaluations of the schemes have been undertaken. AustRoads commissioned an analysis of alternative compliance schemes in 2005 that found that these schemes are beneficial to the improvement of transport safety. Apart from this, there is no independent nor regular monitoring nor evaluation of the schemes and their safety outcomes.

Further evaluation focused on the assessment of this program includes the following.

Feasibility of Initiative in an Australian Context

The NHVAS mass and maintenance management modules seem to be offering efficiency benefits to the Australian transport industry, and may be producing safety outcomes as well. However, it is too early to say whether the Fatigue Management module will be feasible and effective in terms of both safety and efficiency.

One possibility is to develop a light vehicle fleet safety accreditation scheme based on principles and standards embodied in NHVAS. It is likely that light vehicle fleet operators do not want a cumbersome set of requirements to meet on top of existing regulatory requirements. So, while it is feasible to develop an accreditation program, it needs to be simpler than the heavy vehicle schemes and attractive incentives and/or benefits would need to be identified

Adaptability as an Australian National Corporate Road Safety Program

Alternative compliance programs are a good option for a country with limited transport and occupational safety enforcement resources. The adaptation in the non-heavy vehicle transport sector will be a challenge as employers have not yet fully embraced their road safety responsibilities. However, it may be worth the effort to promote a chain of responsibility culture for employers.

Advantages of Initiative

One advantage of NHVAS is that it is already working in the Australian context. There are also effective incentives for operators to be accredited under each of the three modules.

Disadvantages of Initiative

It may be difficult to adapt the approach in a broader corporate road safety environment, given that there are no obvious incentives for uptake of such schemes by light vehicle fleet operators.

NHVAS has virtually become a condition for receiving regulatory and operational efficiency benefits. Operators may be accredited to the modules without seeking to improve safety management.

Conclusion

These initiatives show some considerable promise and already have reasonably good foundations already laid. Corporate road safety beyond the heavy vehicle transport industry is not well developed. But the corporate sector needs to gain an appreciation of the systems approach to managing work-related driving safety. Alternative compliance programs may well seem a better option to them than the imposition of more regulation. They will need to be convinced of an imperative to become more pro-active in managing corporate road safety, but this could be achieved in part by demonstrating that it is cost-effective to do so.

WESTERN AUSTRALIA DEPARTMENT OF MAIN ROADS – NHVAS

Overview

In 2002, Western Australian Government introduced a compulsory accreditation scheme for restricted access vehicles, including B-Doubles, over-dimensional vehicles and road trains. For other vehicles, the NHVAS accreditation is voluntary.

There were 3,880 vehicles accredited under this scheme in 2007.³²

Proactive Safety Management – *Is it focused on the reduction of death and serious injury that requires organisations to examine their own road safety data and therefore creates a better understanding of their road safety risks and issues?*

NHVAS is primarily focused on safety management although some elements are more about asset management. The Fatigue Management module of the scheme aims to encourage a risk-analytical approach to putting in place systems and programs for managing fatigue risk for drivers.

Safe System Principles – *Does it take into account human propensity to err and attempt to safe guard the system from causing injury through design and management practices?*

NHVAS does not specifically mention the need to protect people from injury above all else. However, its focus is about systemic safety management of vehicles and people.

To be NHVAS accredited in Western Australia, operators must meet the requirements of the maintenance and fatigue management modules.

Promotion and Acknowledgement– *Does it ensure that organisation can be promoted both internally and externally as well as allow opportunities for organisational self-promotion?*

NHVAS accreditation has potential promotion advantages, with regard to marketing to customers, improving relationships with enforcement authorities and improved staff morale. Under the Chain of Responsibility legislation, transport customers may well be attracted to engage companies that are voluntarily NHVAS accredited .

Provide Generic Guidance Statements – *Does it provide guidance based on the Safe System approach to Road Safety supported by detailed documentation that supports road safety best practices? – Statements need to ensure engagement from senior management to implementation on the ground.*

This accreditation scheme promotes process involvement from the senior management, drivers and others in the organisation. NHVAS requires detailed documentation of management systems and have clear guidance statements.

Incorporation of ISO 39001

By its nature NHVAS lend itself to incorporation of ISO 39001. The scheme is compatible to quality assurance processes and principles such as ISO 9000.

³² Baas, P.,(2008)

Adaptability to Australian Context – *Is the initiative possible as a National Program?*

This program is already an Australian national program. A similar accreditation program can, perhaps be modified for light vehicle fleet operators. However, it may be difficult to provide sufficient incentives for accreditation in this context.

Evaluation and Monitoring – *Does it measure progress and risk assessments for on-going improvement?*

There is an independent auditing system for the scheme. The audit requirements are described on page 41.

However, there has been only one attempt to evaluate the program. Austroads was commissioned to evaluate NHVAS, NHVAS (WA) and TruckSafe in 2008³³. Apart from this, there is no independent nor regular monitoring or evaluation of the scheme and its safety outcomes.

Further evaluation focused on the assessment of this program includes the following.

Feasibility of Initiative in an Australian Context

Another possibility is to develop a light vehicle fleet safety accreditation scheme based on principles and standards embodied in NHVAS. It is likely that light vehicle fleet operators do not want a cumbersome set of requirements to meet on top of existing regulatory requirements. So, while it is feasible to develop an accreditation program, it needs to be simpler than the heavy vehicle schemes and attractive incentives and/or benefits would need to be identified if it is not made compulsory.

Adaptability as an Australian National Corporate Road Safety Program

The Western Australia approach to mandating accreditation for certain vehicles is out of step with the approach taken by other States. It is unlikely that that others or the National Regulator will try to replicate this across Australia.

Advantages of Initiative

The advantages of alternative compliance programs such as TruckSafe and NHVAS are that they are already working in the Australian context. In addition, there are a number of opportunities for enhancing and strengthening these programs.

Disadvantages of Initiative

It may be difficult to adapt the approach in a broader corporate road safety environment, given that there are no obvious incentives for uptake of such schemes by light vehicle fleet operators.

Conclusion

These initiatives show some considerable promise and already have reasonably good foundations already laid. Corporate road safety beyond the heavy vehicle transport

³³ IBID

industry is not well developed. But the corporate sector needs to gain an appreciation of the systems approach to managing work-related driving safety.

To be NHVAS accredited in Western Australia, operators must meet the requirements of the maintenance and fatigue management modules. However, in other States, operators can be NHVAS accredited to the mass management module without being accredited to the more safety-oriented modules.

AUSTRALIAN TRUCKING ASSOCIATION – TRUCKSAFE

Overview

In 1996 following a series of pilot projects, some in partnership with government authorities, the Australian Trucking Association, subsidiary company, TruckSafe Pty Ltd has developed and now administer a series of safety management modules in TruckSafe. This scheme aimed to lift the profile of the trucking industry and to improve the safety performance of heavy vehicle transport operators.

Proactive Safety Management – *Is it focused on the reduction of death and serious injury that requires organisations to examine their own road safety data and therefore creates a better understanding of their road safety risks and issues?*

TruckSafe is entirely focused on improved safety management. The scheme is actively managed by TruckSafe Pty Ltd. Following the initial audit to join the scheme, and in addition to regular and random compliance audits, additional audits may be triggered if it is suspected that an accredited operator is no longer compliant. However, the scheme does not require incident data analysis.

Safe System Principles – *Does it take into account human propensity to err and attempt to safe guard the system from causing injury through design and management practices?*

TruckSafe does not specifically mention the need to protect drivers and other road users from injury above all else. However, its focus is about systemic safety management of vehicles and drivers.

A core set of four safety standards underpin TruckSafe; and TruckSafe accreditation requires operators to meet all of the requirements of accreditation to the modules on safety management, vehicle maintenance, driver training and driver health to be a TruckSafe member.

Promotion and Acknowledgement– *Does it ensure that organisation can be promoted both internally and externally as well as allow opportunities for organisational self-promotion?*

All TruckSafe accredited companies are listed on the TruckSafe website, enabling customers to choose accredited operators, thus providing some assurance of hiring a safe transporter.

In addition, TruckSafe offers a number of ways for accredited operators to promote their safety image. These include the use of:

- A letter of accreditation;
- A certificate of accreditation; and
- TruckSafe identification logos to affix to vehicles and use on company letterheads.

The ATA also now has an annual award program for TruckSafe accredited operators.

Provide Generic Guidance Statements – *Does it provide guidance based on the Safe System approach to Road Safety supported by detailed documentation that supports road safety best practices? – Statements need to ensure engagement from senior management to implementation on the ground.*

TruckSafe accreditation promotes process involvement from the senior management, drivers and others in the organisation. It also involves detailed documentation of management systems and has clear guidance statements.

Incorporation of ISO 39001

By its nature TruckSafe lend itself to incorporation of ISO 39001. The scheme is compatible to quality assurance processes and principles such as ISO 9000. Indeed, TruckSafe claims that some government bodies have recognised TruckSafe accreditation as equivalent to quality assurance for contracting purposes.

Adaptability to Australian Context – *Is the initiative possible as a National Program?*

The program is already an Australian national program. The current number of accredited vehicles is unknown. As at 31st December, 2005, a total of 6,632 powered units are accredited.³⁴

These accreditation programs can, perhaps be modified for light vehicle fleet operators. However, it may be difficult to provide sufficient incentives for accreditation in this context.

Evaluation and Monitoring – *Does it measure progress and risk assessments for on-going improvement?*

The schemes require systematic auditing processes. In the case of TruckSafe, an auditor is selected by the TruckSafe administrative group.

However, few evaluations of the schemes have been undertaken. AustRoads commissioned an analysis of alternative compliance schemes in 2005 that found that these schemes are beneficial to the improvement of transport safety. Apart from this, there is no independent nor regular monitoring nor evaluation of the schemes and their safety outcomes.

Further evaluation focused on the assessment of this program includes the following.

Feasibility of Initiative in an Australian Context

One possibility is to develop a light vehicle fleet safety accreditation scheme based on principles and standards embodied in TruckSafe. It is likely that light vehicle fleet operators do not want a cumbersome set of requirements to meet on top of existing regulatory requirements. So, while it is feasible to develop an accreditation program, it needs to be simpler than TruckSafe and attractive incentives and/or benefits would need to be identified

Adaptability as an Australian National Corporate Road Safety Program

Alternative compliance programs are a good option for a country with limited transport and occupational safety enforcement resources. The adaptation in the non-heavy vehicle transport sector will be a challenge as employers have not yet fully embraced their road safety responsibilities. However, it may be worth the effort to promote a chain of responsibility culture for employers.

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It would be more consistent with the Australian road safety policy framework if it would feature a safe system approach with injury risk to all road users a fundamental criteria to assess adequacy of safety systems.

Advantages of Initiative

The advantages of alternative compliance programs such as TruckSafe are that it is already working in the Australian context. As a voluntary industry-driven scheme, it carries the advantage of being promoted by a peer group instead of being seen as something the governments want companies to do. In addition, there are a number of opportunities for enhancing and strengthening this program.

Disadvantages of Initiative

It may be difficult to adapt the approach in a broader corporate road safety environment, given that there are no obvious incentives for uptake of such schemes by light vehicle fleet operators.

The program has not embraced the safe system approach with a clear focus on injury prevention. It would also be helpful to evaluate the effectiveness of the program in a controlled quantitative longitudinal study.

Conclusion

TruckSafe shows some considerable promise and already has reasonably good foundations already laid. Corporate road safety beyond the heavy vehicle transport industry is not well developed. But the corporate sector needs to gain an appreciation of the systems approach to managing work-related driving safety. Alternative compliance programs may well seem a better option to them than the imposition of more regulation. They will need to be convinced of an imperative to become more pro-active in managing corporate road safety, but this could be achieved in part by demonstrating that it is cost-effective to do so. There is evidence that TruckSafe accredited operators believe that the benefits to accreditation have outweighed the costs of participation. It is reasonably likely that a good business case can be made for light vehicle fleet operators as well.

GENERAL COMMENT ON NHVAS, NHVAS (WA) AND TRUCKSAFE

There are a number of ways that transport companies attempt to assess and assure that they have good safety practices in place. The primary reasons for this are to avoid costs associated with regulatory compliance procedures and insurance premium levels. The types of safety certification programs can be categorised into four distinct options: self-evaluative, alternative compliance, formal certification and mandated standards and practices.

The current number of accredited vehicles is unknown. As at 31st December, 2005, fewer than 20,000 powered units were accredited in any scheme.³⁵

A summary table of modules currently covered in each scheme is provided in Table 1 below.

Table 1 – Modules of TruckSafe, NHVAS and NHVAS WA

	TruckSafe	NHVAS	NHVAS WA
Safety Management	X	X	
Maintenance	X	X	X
Training	X		
Workplace Health	X		
Mass Management		X	X (harvest season only)*
Fatigue Management	X	X	X

* Voluntary scheme

Generally, alternative compliance programs are a good option for a country with limited transport and occupational safety enforcement resources. However, such schemes do not address the lower band of recalcitrant trucking companies and drivers. The adaptation in the non-heavy vehicle transport sector will be a challenge as employers have not yet fully embraced their road safety responsibilities. However, it may be worth the effort to promote a chain of responsibility culture for employers.

An important aspect of the credibility and quality assurance of these programs is auditing. Table 2 describes the audit requirements for NHVAS, NHVAS (WA) and TruckSafe.

Table 2 - Audit Requirements for NHVAS and TruckSafe

Type of Audit	Requirements
Entry audit	Certifies that a management system for accreditation is in place, is being used and adheres to the scheme standards before accreditation is granted.
Six month compliance audit	For the first accreditation period, an operator's management system must undergo an audit within the first six months of operation in the scheme. If an audit has not been received six months into accreditation an operator's accreditation will automatically be suspended.
Renewal compliance audit	It is the operator's responsibility to submit the audits to the department three months prior to an operator's accreditation expiring. Accreditation is issued for a period of two years and must be renewed every two years. If a renewal application is not received, an operator's accreditation will automatically be cancelled at midnight of the accreditation expiry date.
Triggered audit	Initiated by the road authority or TruckSafe if non-conformances are identified via on-road breach, intercept report, serious crash or other means.
Random audits	May be conducted at the discretion of the department.

³⁵ IBID

WESTERN AUSTRALIA - OFFICE OF ROAD SAFETY - PARTNERSHIP PROGRAM

Overview

This Partnership Program is an Australian State Government based initiative that interacts with the State Road Safety Strategy of “Towards Zero”. The Towards Zero strategy is strongly entrenched in the safe systems approach to Road Safety; therefore this also influences the program.

Its main objective is to engage the community at their place of employment by:

- Creating partnerships for the benefit of the organisations, their employees and the community
- Working together to prevent crashes that result in serious injury or death

For the purpose of this program the WA Office of Road Safety defines a partnership as:

A formal agreement between two or more parties that have agreed to work together *Towards Zero* in the pursuit of reducing transport related death and serious injury at the workplace and in our broader community.

The Program finds its roots from the Swedish Road Safety and European Road Safety Charter as it also utilises the Swedish “OLA” road safety investigation and problem solving model. This is a process involving **O**bjective data, **L**ist of opportunities, and an **A**ction plan.

The Program has been set up to help engage people and organisations at their workplace (Fleet Management, OH&S) and, or, utilising the engaged organisations market placement to promote a road safety message to the greater community (signage, promotions).

The program aims to influence organisations to take greater responsibility for the safety of their employees including road safety policy development, influencing fleet purchasing, in-house corporate training initiatives for road safety and road or infrastructure developments.

The program has a three tiered structure allowing corporate engagement at various levels, including

- Individual Partnerships
- Alliances and Sub Industry Working Groups (Utilities, Heavy Vehicles, Light Fleet, Mining and Energy, Industry)
- Corporate Road Safety Round Table

The program has a strong corporate social responsibility approach and organisations engaged in the program can also choose to enter into a formal partnership agreement. The formalised partnership agreement in return creates a level of corporate recognition in its own right.

Corporate recognition is also promoted through the use of partnership program newsletters, which promote the recent activities.

Partnership program has been developed to provide the following outcomes:

- Leverage organisations within both private and public sectors for the delivery of road safety messages to both staff and the community
- Provide educational materials for road safety training and awareness to staff and contractors
- Assist with corporate policy and procedure development and implementation

Proactive Safety Management – *Is it focused on the reduction of death and serious injury that requires organisations to examine their own road safety data and therefore creates a better understanding of their road safety risks and issues?*

The partnership program is based on a set of core values and guiding principles coupled with intended responsibilities for the partnering organisation. These values, principles and responsibilities do require the organisation to examine their own operations and also examine how their operations effect or influence other road users on the network

Partnership Guiding Principles:

1. Take active and achievable measures within the sphere of responsibility (individuals and/or organisations) to contribute to reducing the number of fatalities and serious injuries on our roads.
2. Carry out effective actions to promote road safety and awareness as decision-making criteria within the general framework of the organisation.
3. Encourage continuous road safety education actions in the environment that it operates within or has influence (individuals, organisations and community).
4. Ensure that sound road safety policies are developed and implemented, including:
 - a. Fleet Safety Policy developed with a road safety organisation.
 - b. Driver selection, employment selection
 - c. Driver and road safety induction
 - d. Driver training and education
 - e. Fit for purpose vehicles & safest vehicle possible (ANCAP 5 Star Ratings)
 - f. Driving safety incentives and disincentives
 - g. Driver and vehicle reporting – crashes, near misses, vehicle maintenance, education attended
5. Be willing to share information on effective measures undertaken that worked well for the organisation and its employees and for the community.
6. Report annually on actions taken or measures implemented to promote road safety.

Safe System Principles – *Does it take into account human propensity to err and attempt to safe guard the system from causing injury through design and management practices?*

The WA Office of Road Safety Partnership Program utilises the Safe System approach to road safety as the central focus of the initiative. The Program has dedicated a complete section of its publication to Safe System methodology and also includes information on the relationship between the core elements of the system. The Safe System approach to road safety is also reflected in the WA State road safety strategy, *Towards Zero*; therefore both the State strategy and the partnership program, which is governed by the State, are aligned and promote the common message of Safe System principles.

Promotion and Acknowledgement– *Does it ensure that organisations can be promoted both internally and externally as well as allow opportunities for organisational self-promotion?*

The Office of Road Safety Partnership Program, ensures that all partners who have formally engaged with the initiative receive the following exposure and acknowledgement:

- Office of Road Safety website acknowledgement - Under partnerships, organisation or corporate logo, with hyperlink to partner website.
- Signed certificate of commitment
- Plaque of commitment
- Awards
- Public media releases, including the possibilities for case studies, state government road safety network magazine exposure, local and State press and media
- Opportunity for best practice case studies publications

Provide Generic Guidance Statements – *Does it provide guidance based on the Safe System approach to road safety supported by detailed documentation that supports best practices? – Statements need to ensure engagement from senior management to implementation on the ground.*

The Program does provide generic guidelines that can be adapted from management through to implementation within the road network. The Program covers the fundamentals of the Safe System, corporate social responsibility values, guiding implementation principles and general corporate responsibilities.

Incorporation of ISO 39001

Although this program has no mention of ISO 39001, the Partnership Program is strongly linked to the Safe System model for road safety; therefore both are working in parallel

Adaptability to Australian Context – *Is the initiative possible as a National Program?*

This Program is currently being implemented in an Australian context, although it is limited to a single state program (Western Australia). It is believed that some of the elements of the program would be transferrable at a national level but is heavily reliant on government funding and has only a limited scope for developing program sustainability without the required funding.

Evaluation and Monitoring – *Does it measure progress and include risk assessments for on-going improvement?*

The Program does undertake an annual evaluation including cost benefit, policy implementation and a maturity model. The maturity model is an internal assessment program of evaluation against set criteria. This evaluation is lacking any scientific or research proven approach and also lacks independence or the organisation's engagement in the evaluation process.

Further evaluation focused on the assessment of this program includes the following.

Feasibility of Initiative in an Australian Context

It is our view that elements of the partnership program could be feasible in a larger Australian context. The program does require a central management and governance structure in which it is implemented. The partnership program also coordinates and facilitates knowledge transfer from national and international research into corporate management and organisations workplaces.

Adaptability as an Australian National Corporate Road Safety Program

This program is currently being implemented in an Australian context, although it is limited to a single state program. It is believed that some of the elements of the program would be transferrable at a national level, including but not limited to, the following:

- Partnership Alliance concept – Geographical zoned industry road safety working groups
- Sub Industry Working Groups- Divided by Industry types
- Agreeing and aligning to initiatives' values and general corporate statements or values
- Provisions for corporate recognition
- Transfer of Road Safety Knowledge into Corporate Implementation

Advantages of Initiative

There are numerous advantages to this program. It has a proven track record in Australia and has been recognised internationally as being part of international best practice for road safety collaboration. Other advantages include the support of a Government agency providing independence and non-charged service for research and assistance.

Disadvantages of Initiative

Disadvantages include the programs lack of scientific evaluation model or any organisational self-assessments or independent audits to get accurate progress of change implementation. The program is also heavily reliant on government funds for support, as the program does not charge for any of the corporate promotional materials, including signage and corporate giveaways, ie all are funded by government; therefore complete program sustainability is not possible. If the program was not to be funded by the state government the program would possibly cease to exist.

Conclusion

Evaluating the WA Office of Road Safety Partnership Program, there are some very interesting elements that could prove feasible in a national context for corporate road safety engagement. The program utilizes knowledge of the European Road Safety Charter and has added some of its own methodology which seem to fit within the context and cultures of organisations in Western Australia. There is an interesting mix of the Swedish OLA process, Safe System and Corporate Social Responsibility models to generate an internationally recognised best practice for **(collaborative or corporate)** road safety engagement. The program could benefit from strengthening the evaluation and monitoring process of the program and some form of enforcement or prosecution for non-participating companies that have been involved in a crash resulting in a serious injury or death.

QUEENSLAND TRANSPORT - WORKPLACE FLEET SAFETY SELF-AUDIT

Overview

The Workplace Fleet Safety System consists of the Workplace Fleet Safety: How to Conduct a Self-Audit booklet, and the Workplace Fleet Safety Self-Audit Workbook. The Workplace Fleet Safety System was designed for use by organisations with light vehicle fleets. The aim of the system was to help organisations identify whether they are using best practice fleet safety practices, and areas in which the organisation should strive to improve.

Elliott & Shanahan Research Group (Staysafe Report 36, 1997) found that approximately 80% of organisations believe their fleet safety record could be improved. It was also reported that more than 60% of organisations require outside help to improve their fleet safety.

These and other findings led to an increased commitment by Queensland Transport to fleet safety. The aim of the Workplace Fleet Safety System was to help organisations make their fleets safer and more efficient. Whilst the system primarily aimed to help organisations with light fleet vehicles, improving fleet safety performance would potentially have an overall road safety benefit for the whole community.

The Workplace Fleet Safety System introduced and explained the seven elements of best practice fleet safety, each of which contains sub-elements of best practice. It also showed how the fleet safety elements are linked to Australian Standard AS/NZS ISO 9001:1994 — Quality systems — Model for quality assurance in design, development, production, installation and servicing.

The Seven elements of best practice recognised by Queensland Transport included:

1. Fleet Safety Policy: Including fleet safety and safe driving policy in organisational policy and objectives
2. Recruitment and Selection: Hire drivers based on safe driving records and awareness of safety issues
3. Induction Programs: Induct all new recruits and supervisors using an official program containing fleet safety and safe driving components
4. Fleet Selection and Maintenance: Adhere to best practice in fleet selection and fleet maintenance
5. Vehicle Crash Involvement: Maintain an efficient system of recording and monitoring overall fleet, individual driver, and individual vehicle crash involvement
6. Incentives and Disincentives: Recognise good/bad driving performance through an official scheme of commensurate incentives and disincentives
7. Training and Education: Support training, education and development programs to engender safe driving

Queensland Transport officially recognised organisations that had achieved best practice requirements in fleet safety. Organisations that met the criteria for implementing best practice using the Workplace Fleet Safety System received a certificate from Queensland Transport, suitable for display in the workplace.

To be eligible for a level of achievement, an organisation had to demonstrate that it had put in place the Workplace Fleet Safety System sub-elements of that achievement level.

Three levels of achievement — Bronze, Silver and Gold — reflect levels of fleet safety best practice. Organisations had to first meet the Bronze level of best practice. On gaining recognition at Bronze level, organisations could then apply for the Silver level. Recipients of Bronze and Silver level certificates could apply for a Gold Plaque if they could demonstrate that the organisation had in place appropriate best practice procedures. Organisations applied for recognition by contacting Queensland Transport for an application booklet. (Note that this program is no longer operating.)

The Fleet Safety Self-Assessment incorporated the following resources to assist organisations:

- Workplace fleet safety: how to conduct a self-audit—a guide that details ways in which fleet safety can be improved.
- Workplace fleet safety self-audit workbook—a checklist for conducting a fleet safety audit in their organisation.

Proactive Safety Management – *Is it focused on the reduction of death and serious injury that requires organisations to examine their own road safety data and therefore creates a better understanding of their road safety risks and issues?*

The Fleet Safety Self-Assessment initiative was based on a systematic process of policy and procedural development for the use of recognising the risks or hazards and the implementation of fleet safety management system. If any organisation was to implement the Fleet Safety Self-Assessment, the policy and procedural guidelines (Workplace Fleet Safety Self-Audit Workbook) would require them to examine their own operations, policies, procedures and delivery of safe fleet management. The Fleet Safety Self-Assessment did not specify performance outcomes other than evidence of policy and procedural implementation to the specific standard as set out in the Auditing Guidelines.

Although the Self-Assessment is very generic, there appears to be no evidence of the policies and procedures relating back to the reduction of death or serious injury. The Fleet Safety Self-Assessment initiative required organisations to address what was being held as best practice by agreement across the road safety authorities in all Australian States and Territories - the seven steps to fleet safety.

Safe System Principles – *Does it take into account human propensity to err and attempt to safe guard the system from causing injury through design and management practices?*

The Fleet Safety Self-Assessment and the seven steps to fleet safety were designed as a systematic approach to organisational road safety although it does not directly promote the Safe Systems approach to road safety. The Fleet Safety Program does cover the engagement of road users entry into the network, vehicles and speed management although there appears to be no relation to road selection due to hazards or high-risk roads and/or roadside furniture.

Promotion and Acknowledgement – *Does it ensure that organisation can be promoted both internally and externally as well as allow opportunities for organisational self-promotion?*

The Fleet Safety Self-Assessment initiative was limited to Queensland. The Queensland Government, through the facilitation of Queensland Transport, officially recognised organisations that achieved best practice requirements in fleet safety. Organisations that met the required criteria for implementing best practice using the Workplace Fleet Safety System received a certificate from Queensland Transport, suitable for display in the workplace.

Three levels of achievement were possible ranging from Bronze to Gold that reflected the organisation's level of fleet safety best practice once audited by Queensland Transport.

The Fleet Safety Self-Assessment initiative appears to be limited in the promotion and acknowledgement to the presentation of a certificate. The Fleet Safety Self-Assessment does not appear to have any website or published acknowledgement of organisations which have obtained the certificate.

Provide Generic Guidance Statements – *Does it provide guidance based on the Safe System approach to Road Safety supported by detailed documentation that supports road safety best practices? – Statements need to ensure engagement from senior management to implementation on the ground.*

The Fleet Safety Self-Assessment was designed as a generic guide for the development of any organisation's light fleet vehicle fleet safety management. The program promoted the need for the undertakings to be wide spread across the organisation from management to implementation, including the need for policy promotion and sign off by employees.

The guidelines do not prescribe the type, format or style of policy or procedure required other than stating that they were required. The Fleet Safety Self-Assessment did not specify any performance outcomes; rather it uses guiding questions to assist an organisation reach an outcome through self-assessment and the seven steps to fleet safety management.

Incorporation of ISO 39001

The Fleet Safety Self-Assessment does not include any reference to the draft ISO 39001. However, it could be modified to do this.

Adaptability to Australian Context – *Is the initiative possible as a National Program?*

The Fleet Safety Self-Assessment initiative was an Australian program based in Queensland. This program could possibly be adapted to a National context but it is better suited to light vehicle fleets. Although the seven step model for government and corporate fleets has been generally adopted and promoted by Australian State and Territory governments, it is limited to light vehicles.

Evaluation and Monitoring – *Does it measure progress and include risk assessments for on-going improvement?*

The Fleet Safety Self-Assessment program was designed primarily for enabling light fleet vehicle self-assessments, but because few organizations became involved in the program, Queensland Transport and Main Roads no longer promotes this initiative.

The Fleet Safety Self-Assessment initiative mentions the need for reviews of policies and procedures as well as vehicle incident data, but is limited in its description or recommendation of time periods for conducting such reviews.

The internal self-assessments can be limited depending on the organisations motivation and what has motivated them to engage in the Fleet Safety Self-Assessment initiative.

The Self-Assessment is also linked to the ISO 9001:1994; the ISO standard also required on-going assessments.

Further evaluation focused on the assessment of this program includes the following.

Feasibility of Initiative in an Australian Context

It would not be recommended that the NTC undertake the Fleet Safety Self-Assessment initiative as a leading initiative for corporate road safety uptake. This program relates to light fleets and does not provide high level principles and methodology that could be utilised across all corporate fleets and fleet types Australia wide.

Adaptability as an Australian National Corporate Road Safety Program

The Fleet Safety Self-Assessment was not designed as a holistic set of principles or overarching guidelines but a more detail implementation guide for fleet managers and OHS management; therefore it is unlikely to be useful as a nationally leading and engaging program for all industry sectors across Australia.

Advantages of Initiative

The advantages of Fleet Safety Self-Assessment include the ability to provide a self-assessment tool that is of little cost to the government to facilitate after set-up, and is of no cost to the organisation to engage in the initiative other than their own time investment. The program also provides a progressive attainment rating and certification from bronze to gold that could motivate organisations to become more engaged with the management of road safety and gain a higher rating. The program was also developed and governed through certification audits by the State Government therefore providing a level of independence and creditability.

Disadvantages of Initiative

The major disadvantage for the Fleet Safety Self-Assessment is that the uptake of the programs was poor. It is also an initiative that was designed for light fleet and not all fleet types or industry sectors. The Fleet Safety Self-Assessment is a descriptive guide for the implementation of the seven steps for safe fleet management and not overarching principles or methodology. The initiative is very limited on the promotion or acknowledgment of the organisations that have engaged in the program, therefore there is little opportunity for corporate leverage or market promotion. The initiative also appears to be lacking central management or coordination of networking, publications and case studies promoting any organisation's successes. Moreover, because it is a voluntary system, it does not address those companies that don't want to join and have a bad safety performance.

Conclusion

In conclusion, a national corporate road safety initiative based on this program would need to address the shortcomings that has rendered the program virtually defunct at this point. Although this initiative is not recommended as a national program there are some elements that are worth noting as potentially worthy for inclusion in a national initiative, these include:

- opportunities and guidelines for organisations to undertake self-assessments
- opportunities for organisations to obtain a high level of certification / acknowledgement therefore promoting greater engagement and understanding of the risks that road safety presents.

Although the program promotes road safety and the engagement of an organisational wide participation of road safety from management through to implementation, it is limited to light fleet organisations and not the greater fleet types or diverse industry sector represented across Australia.

OTHER PROGRAMS OF INTEREST

There are a number and variety of other safety management programs that focus on work related safety. These programs were chosen on the basis of their relevance to the NTC's objectives.

National Logistics Safety Code

The retail and steel industries developed a safety code to guide companies to comply with chain of responsibility management practices.³⁶ These codes have been generalised as a set of principles to guide companies in all industries. There is not yet a big buy-in by companies. The major retail companies, steel companies and transport companies are working together to promote this approach.

Network of Employers for Transport Safety (NETS)

NETS is a member-based organisation that allows companies to benchmark their safety performance against other companies. It is mostly American based. While, NIOSH and CDC have been involved in this initiative, NETS are seeking to be self-funding by selling their benchmarking/data analysis services and do not make the information more widely available (beyond their membership.) NETS has recently been accepted as a member of the United Nations Road Safety Collaboration.

Land Transportation Safety Recommended Practice

The International Association of Oil and Gas Producers developed a safety management guide that aims to assist its members to fully assess and address land transport related risks.³⁷ It is a comprehensive document of recommended management practices, but there is no coordination nor monitoring of its use. The uptake on these practices is unknown. Moreover, they have not been independently evaluated for efficacy of their recommended practices.

³⁶ ALC, National Logistics Safety Code (NLSC) Audit Framework, 2009, Australian Logistics Council.

³⁷ Land transportation safety recommended practice, 2005, International Association of Oil & Gas Producers.

While this initiative represents a good example of a collaborative approach to devise industry-specific transport safety guidance for industry members, there is no ongoing administrative structure nor commitment to follow through with members to assure sustainability.

Safety in Transport Program (SIT) (Safety and Communications/Reliance)

The Safety in Transport program was developed and delivered by a consulting company (Safety and Communications) for Reliance Petroleum (national carrier for BP). The program uses a group discussion method to involve truck drivers in the identification, analysis and resolution of risks associated with their work. It was implemented in Reliance Petroleum from 2004-2006. But it has not been evaluated for safety outcomes. It is more of a tool than a program and has no administrative structure.

Fleet Safety Benchmarking Workshops (Benchmarking Partnerships)

A series of benchmarking workshops have been conducted in Australia, plus one in Thailand, to explore the research evidence and the practical experience of those involved in fleet safety activities. These workshops have addressed a number of specific topics in fleet safety, enabling participants to hear about the latest research in these areas, some case studies from fleet safety practitioners in organizations, and discuss among peers the challenges and techniques used in advancing fleet safety. Over 100 companies have participated in the Workshops since the first one was held in March, 2004.³⁸ This is a continuous learning program. No evaluation other than individual workshop evaluations has been carried out.

Canadian National Safety Code (NSC)

Canadian law requires transport operators to have good safety management systems in place. The requirements are specified in the Canadian National Safety Code (NSC).³⁹ Progressively this Code has been implemented across Canadian Provinces, with some good early indications in Ontario. While attribution to the NSC is not definitive, Ontario now has the lowest number of fatalities per 10,000 drivers in North America, with truck fatalities falling from 300 in 1996 to 99 in 2004. It should be noted that compliance to the Code carries significant incentives; including pre-clearance at borders for safe operators, fee exemptions, and the names of operators with 'excellent' and 'unsatisfactory' ratings being named on a website.

Responsible Care (chemical industry)

The chemical manufacturing industry scheme, Responsible Care, initiated by the International Council of Chemical Associations, has components on formal commitment by the chief executive officer, codes, guidance notes and checklists to help companies meet their commitment, indicators against which improvements in performance can be measured, open communication on health, safety and environmental, opportunities for companies to share views and exchange experiences, and procedures for verifying that member companies have implemented the measurable or practical elements. This scheme appears to be effective, with US Department of Transport data indicating that since 1995, transport incident rates for Responsible Care members have declined by 35%.⁴⁰

³⁸ Mooren, L., Fleet Safety: Benchmarking Good Practice from Collective Insights, in Road Safety on Four Continents 2007: Bangkok.

³⁹ Transport Canada. National Safety Code. 2007; Available from: <http://www.tc.gc.ca/eng/mediaroom/backgrounders-b01-r118-1350.htm>.

⁴⁰ King, A. and. Lenox, M., Industry Self-Regulation without Sanctions: The Chemical Industry's Responsible Care Program. The Academy of Management Journal, 2000. 43(4): p. 698-716.

National Rail Safety Guideline

The NTC together with the Rail Safety Regulators Panel produced a guideline document to provide advice to rail safety regulators, industry and other stakeholders on how to comply with rail safety regulations and how to develop safety management systems.⁴¹ As root cause analysis of incidents is needed to identify systemic weaknesses in injury prevention defences, an additional resource is incorporated to guide the investigation and root cause analysis of rail safety incidents.⁴² This manual of “contributing factors” to safety incidents in the rail industry aims to guide a strengthening of systemic safety management defenses against risk.⁴³ As all Australian rail operators must be accredited to operate, these are considered to be practical tools for assuring compliance with safety management requirements.

FOUR CATEGORIES OF PROGRAMS

There are four types of programs that appear to embrace safety management improvement in the work related road safety sphere.

First, there are a group that aim to advance good safety management practice through the establishment of **standards and auditable management systems**. These include safety management standards such as AS/NZS 4801:2001, BARS, NHVAS, TruckSafe, Queensland Transport - Workplace Fleet Safety Self-Audit, National Rail Safety Guideline, and Canadian National Safety Code.

A second group uses **benchmarking processes** to motivate and advise good safety management practices. These include such programs as NETS and Driving for Better Business.

A third group may be described as **shared continuous learning and improvement** programs. These programs aim to provide a mechanism for sharing experiences and learning through this process. The programs that operate in this way, are the WA Partnership Program, Fleet Safety Benchmarking Workshops and Safety in Transport.

Finally, there is a group of programs that establish **codes of practice** and urge companies to adopt these practices. These programs include the National Logistics Safety Code, Land Transport Safety Recommended Practices, and Responsible Care.

Beyond this the NTC could develop a certification program for lighter corporate vehicles, perhaps modifying and extending the Queensland self-audit program, or basing it more on the National Rail Safety Guideline.

SUMMARY DISCUSSION

The literature review, review of specific programs, consultations with the NTC Project Team and analysis of all information gathered reveals a number of good options for the NTC in the pursuit of corporate road safety. There emerged a number of threads that, sewn together provide a sound basis for developing an effective national corporate road safety program.

⁴¹ NTC, National Rail Safety Guideline: preparation of a rail safety management system. June, 2008

⁴² Rail Safety Regulators' Panel, Contributing factors framework Manual. Version 1.0, February, 2009

⁴³ Ibid

Consideration of possible approaches to developing an effective national corporate road safety program, took into account the following criteria.

- **Proactive Safety Management** – *focused on the reduction of death and serious injury, which requires organisations to examine their own road safety data, thereby creating a better understanding of their road safety risks and issues.*
- **Promotion and Acknowledgement** – *Ensures that organisations can be promoted both internally and externally as well as allow for the opportunities to organisational self-promotion*
- **Safe System** – *takes into account human propensity to err and attempts to safe guard the system from causing injury through design and management practices.*
- **Provide Generic Guidance Statements** - *based on the Safe System approach to road safety supported by detailed documentation that support road safety best practices – Statements need to ensure engagement from senior management to implementation on the ground.*
- **Incorporation of ISO 39001** – *assists to advance compliance with this standard.*
- **Adaptability to Australian Context** – *possible to adapt as a National Program.*
- **Evaluation and Monitoring** - *progress and risk assessments for ongoing improvement.*

Comment:

With regard to proactive safety management based on data analysis, fatal and serious injury crashes are very rare events for corporate organizations. So, incident, cost and risk data is more likely to bring attention to the need for action. Judging from the uptake of the TruckSafe scheme, Driving for Better Business and the Fleet Safety Benchmarking workshops, it would appear that opportunities for organizational self-promotion can be a motivation for participation in corporate road safety programs. The safe system approach is consistent with community expectations of safety at work, however, work related driving safety is often not seen as a primary responsibility by employers, perhaps because of the strong Australian perception that road safety is a government responsibility.

Unless an organization features a strong safety culture, often a *business case* is required to secure senior management commitment. But even then the attention to the problem is more often triggered by a negative event such as a costly crash.⁴⁴

If a national corporate road safety program is voluntary, it will not effectively address the higher risk companies that are not interested in safety. Only mandatory systems with active auditing and enforcement will influence the practices of these organizations. It may not be possible to mandate a safety management system until there is enough solid evidence to construct such a system and related program.

By and large, Australia has been successful in road safety with a punitive approach to regulation and enforcement. But enforcement of specific vehicle and driver regulations has not been entirely successful. Enforcement over a large geographic area such as Australia's road network with limited resources has always been a challenge. Increasingly, Government agencies and the private sector alike have been experimenting with alternatives to conventional regulation and enforcement through the development of auditable safety management schemes.

⁴⁴ Murray, W., Newnam, S., Watson, B., Davey, J., and Schonfeld, C., Evaluating and improving fleet safety in Australia, ATSB, April, 2003

The United States regulates heavy vehicle motor carrier companies – and rates them for safety performance. Under its Compliance, Safety, Accountability (CSA) program companies are assessed under seven criteria. Like Australia, the Government and motor carrier industry are seeking to find effective alternatives to traditional compliance. Proactive alternative compliance programs could provide tools for achieving higher ratings. As these ratings are made available to customers, there is an incentive to have a good rating and therefore an incentive to participate in the alternative compliance program.⁴⁵

If Chain of Responsibility prosecutions rise in number, and are made public, there may be a growing incentive for transport customers and others in the logistics chain to seek some assurance that safety management systems are in place in the companies that they engage to haul their goods. But other incentives such as tax breaks or other financial rewards may be needed to complement this.

Turning to the question of generic guidance statements based on the Safe System approach, although there is not a clear scientific basis for the specifics of such statements, several attempts by government bodies, industry bodies, not-for-profit and individual corporate entities have produced policies and guidance documents related to corporate road safety. It would not be difficult to critically review the available statements and devise generic resources.

The draft ISO39001 road safety standard will not be finalized for another 12 months. It is a general standard, based on the format of ISO 14001, and aims to speak to governments as well as corporate entities. The issues about ISO39001 are that a) it is so general that most corporate entities are likely to be able to meet the standard without actually doing anything at all, and b) anecdotal evidence and our consultations with industry leaders suggests that yet another standard and audit process will not be particularly welcomed in an environment where there are so many standards and regulations already in place (in Australia).

The adaptability to the Australian context is an important criterion to consider. While there are some interesting programs being carried out in Europe and North America, the Australian regulatory environment and public psyche is different from those regions. Generally, the uptake of “corporate social responsibility” (CSR) seems much much better in Europe, as evidenced by the strong buy-in to the European Charter and support for DfBB. The regulatory system is quite different in the United States where transport companies must register for a license number with the Department of Transport and report on safety indicators. The Canadian National Safety Code, being progressively introduced as a requirement for transport operators in the Canadian provinces, but again, the regulatory framework enables these requirements in ways that the Australian regulatory framework does not. Therefore, the best approach is to critically examine the existing programs, synthesise the best elements and develop a unique Australian national corporate road safety program in consultation with interested parties.

This approach will fill a current gap in the draft National Road Safety Strategy. Within the Draft Strategy there is reference to there being a role for the corporate sector, but apart from suggesting that Government agencies should encourage corporate fleet buyers to buy safer vehicles, there is little detail about how the corporate sector should or can be engaged in road safety.

⁴⁵ Murray, D., Keppler, S., Lueck, M., and Fender, K., Assessing the benefits of alternative compliance. American Transportation Research Institute, January, 2011

Indeed the current draft Strategy doesn't appear to be speaking to the corporate sector at all. One option is that through a national consultation process, a national corporate road safety strategy could be devised using parallel themes to the Government Strategy, ie safe roads (*routes/travel options*), safe speeds, safe vehicles, and safe people.

None of the programs examined have a fully developed evaluation system in place. If there is an evaluation to these they are either in the form of self-reviews and are often seen as continuous improvement processes rather than independent critical assessments of outcomes and outputs. As programs are developed, measurable objectives should be established and a monitoring and evaluation framework built as the program is being designed.

Conclusions

Corporate and industry involvement in proactive road and transport safety programs has been encouraged in a variety of ways. In contrast to Australia, countries such as the United Kingdom are actively involved in the pursuit of corporate road safety. The British Department of Transportation finances a number and range of ongoing and ad hoc corporate road safety programs and organisations. The European Commission also invests substantially in corporate road safety programs. While Australian States have taken some interest in corporate road safety – most notably Western Australia – the investment of time and resources for this area has been very little.

The Western Australia Partnership program has demonstrated that investing more substantial and sustained resources into corporate road safety has the potential to leverage very strong levels of commitment and investment by the corporate sector.

It is recommended that national strategy for corporate road safety is developed from a synthesis of sound elements of a range of programs including those examined in this review and that it incorporate actions under the themes of the Draft National Road Safety Strategy – safe roads, safe speeds, safe vehicles, safe people.

The preparation of this “parallel” national road safety strategy should be done through a consultative process with the major industry and union organisations as well as with State/Territory Government agencies (especially road, transport and occupational safety).

A national program for corporate road safety can then be devised similar to the WA Partnership Program, but drawing from the best elements of other programs, namely:

- Inclusion of a charter for securing specific commitments from organisations relating to corporate road safety (European Charter);
- Promoting recognition of good practices (Driving for Better Business)
- Working through a non-profit organisation (Driving for Better Business);
- Development and promotion of guidance resources, including how to do root cause analysis (National Rail Safety Guideline);
- Evaluation plan based on key program objectives (WA Partnership Program); and
- Establishment and management of an independent certified accreditation process (TruckSafe).

Whatever program is devised, it must incorporate a way to take action against any organization that does not maintain consistent commitment and auditable evidence of an efficacious and proactive safety management system.