

HVTT 12 - HEAVY VEHICLE INDUSTRY: CHAIN OF RESPONSIBILITY LAW AND THE COMPARISON WITH INTERNATIONAL EXPERIENCE

Graduate of Gomel State University,
Belarus. Obtained Master of Logistics
and Supply Chain from the Curtin
University of Technology, Australia.
Working for OMS Alliance since 2010.

K. ONANCHENKO
OMS Alliance,
Australia

Abstract

This paper illustrates analysis of the current situation in the legislation segment for the Heavy Vehicle Industry (HVI) in international perspective. Moreover the current study is to compare the Australian experience with international practices in regulation of HVI including consideration of new initiatives and approaches such as Chain of Responsibility (COR) that focus on minimization of any incidents on the road with heavy trucks involvement.

The main purpose of the current research is to demonstrate common attitude to improve safety issues on road transport, as heavy vehicle segment plays one of the crucial roles in this regard. However based on present industry experience it is very difficult to apply all road safety initiatives due to high level of off-road factors involvement. Therefore implementation of COR Law or similar approaches will help to regulate the Industry and encourage market players to apply continuous improvement process.

Keywords: COR, Heavy Vehicles, Industry, Legislations, Safety, Initiatives, Law, Road.

1. Introduction

International statistics data for the heavy vehicle segment confirms that the safety aspect has a crucial importance for the Heavy Vehicle Industry performance. In Australia the Chain of Responsibility (COR) concept was developed to apply in regulated areas and to place legal obligations on the parties involved in the transport supply chain. This concept was initially developed to decrease unlawful behavior by truck drivers who are influenced by the actions of other parties. Chain of Responsibility laws therefore were implemented to make sure that all the parties involved are encouraged to create incentives to improve the overall industry performance. Moreover these incentives were created to make sure that all the parties are interested in good and safe behavior of the drivers on the road and ensure that these drivers are not undertaking unlawful actions. This is because everyone in the chain will be responsible for the behavior of the drivers.

This article will also define the concept of Chain of Responsibility. Moreover it will show how the examples of the legislations of the Chain of Responsibility already undertaken. Lastly the comparison of the chain of responsibility in New Zealand, South Africa, Canada, the United Kingdom (UK) legislations in HVI will be shown in addition to initiatives and programs that are considering by international organizations.

2. Historical Background

Traditionally in Australia drivers and operators were the only persons who are responsible for any breaches of road law. However, in the reality other people/companies such as customers, loaders, packers and freight forward companies also have a significant influence on the drivers/operators performance and road safety. Moreover, due to high level of competitiveness it is not an extraordinary situation when different businesses try to compromise road safety standards and offer more interested in customer transport rates or faster delivery. So, the main idea of Chain of Responsibility implementation is to encourage good behavior during normal operations and penalize those parties who breach the law.

To show the background and the reasons of implementation the Chain of Responsibility the current characteristics of Australian Heavy Vehicle Industry should be explained. First of all Australian Heavy Vehicle Industry is dominated by a small number of large operators and large numbers of small operators. Based on statistical data from 2002, approximately 70 percent of fleets belong to small private companies that very often include only one vehicle. Furthermore, Australia has only three major players on the market, Toll Holdings, TNT Logistics and Linfox (An overview of the Australian Road Freight, 2003). While New Zealand for example has at least 5 major players in the heavy vehicle market niche (Mainfreight Ltd. Annual report, 2009), while territories and economics cannot be equally treated in these two countries.

The licensing of truck drivers and the registration of operating vehicles is common practice in the most developed countries. Whereas in Australia freight companies are free to operate and charge prices determined by the market as long as overall requirements are satisfied.

In addition, the effect from strict licensing is still discussed by different industry researchers. For example, Quinlan in his reported stated that "... commercial arrangements between an array of parties to the transport of freight, including load owners/clients and receivers, consignors and brokers, freight forwarders, large and small fleets as well as owner drivers have significant influence on safety " (Industrial Relations Victoria, 2005). Based on this

statement it is not necessary to implement regulation borders such as high fee rates for the operating license in order to increase safety in the heavy vehicle segment. Therefore, deriving from specific Australian HVI (more than 70% of the operating fleet belong to small and family business) (Moore, 2001), it is very high probability that after obtaining an operating license with the high fee rate, a small business will try to survive in a competition with industry leaders (Toll, Linfox, TNT) and drop down service rates and, undoubtedly, safety would be one of the trade-offs in this situation.

However, increased attention to the safety issues on the Australian roads has crucial importance for the Australian government since there are many policies, strategies and approaches in a safety segment, that have been already implemented on different levels.

Based on data from the Centre for Automotive Safety research, the number of registered heavy vehicles continues to increase especially during the last 5 years (Raftery, Grigo and Woolley, 2011), while number of crashes/incidents remain without any significant change. It is a very good result in comparison with statistical data from other countries; however it is clear that government needs to put more effort for the incidents rate minimization.

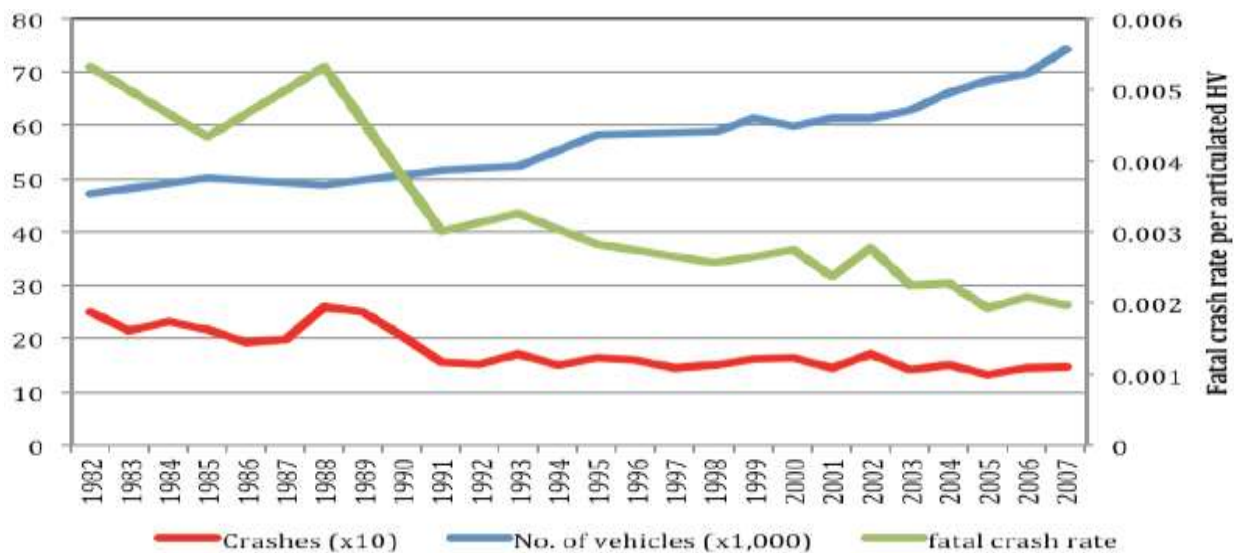


Figure 1 - Trend in articulated HV crashes (x10), number of articulated HVs (x 1,000) and fatal crash rate per number of articulated HVs 1982-2007

Source: CASR Road Safety Research Report

The main reasons for the incidents and fatalities in HVI are speed, fatigue (crash risk was associated with hours of driving with increase of 50-260% compared to first hour of driving), human factor, alcohol and drugs effects, fitness and health conditions of the drivers (Raftery, Grigo and Woolley, 2011). Therefore it is clear that all the parties involved in the supply chain should take the responsibility to avoid the above issues so that the fatalities in the industry are minimized to zero, and so that the fines and penalties will be avoided.

As an example of government initiatives in improving Heavy Vehicle Industry can be considered implementation of National Road Safety Strategy by road authorities in each state and territory (National Road Safety Strategy, 2011). In consideration of world tendency to draw more attention to the safety on roads, it can be concluded that in spite of common goals, different countries have different approaches due to local specific and other external factors. Therefore the National Transport Commission (NTC) made a decision to implement

alternative regulatory regimes that should include all features and specific of Australian Heavy Vehicle Industry and simultaneously improve situation on the safety segment (NTC's Mission, 2011-2020). In this regard, one of the new laws that have been implemented in heavy vehicle segment that characterized the alternative type of regulation in the transport that can be defined as Chain of Responsibility Law that should play a role in prevention.

3. Chain of Responsibility Concept

“Chain of Responsibility” can be described as ‘if a breach of road law occurs due to one company/personal action, inaction or demands, the company or person can be legally accountable’. The above concept can be easily transferred into the below formula (Federal Chamber of Automotive Industries, 2006):

$$\textit{Control} = \textit{Responsibility} = \textit{Legal Liability}$$

Basically, under COR Law the following counterparties like packers, loaders, heavy vehicle drivers, operators, receivers, employers or managers can be liable consignors.

Chain of Responsibility terms and conditions have been developed and endorsed for laws that belong to transportation of dangerous goods, driving hour's regulation and mass, dimensions and load limitations.

The new list of laws are based on the Road Transport Reform (Compliance and Enforcement) Bill and result in broad support and close communication between National Transport Commission (NRTC) and transport industry including comprehensive support from government agencies, Police department, the Transport Workers Union, occupational health and safety authorities and road users organizations.

For avoidance of any confusion, Australian RTA (Roads and Traffic Authority) issued a simple table for all parties involved with advices and clarifications regarding new roles after COR implementation.

During the welcoming speech that was addressed to governments of Victoria and New South Wales that decided to implement COR legislations in September 2005, National Transport Commission Chief Executive Tony Wilson said: “It's pleasing to see two of Australia's largest states, in terms of freight movements, lead the way in implementing this legislation.” He also added the following, “We look forward to other states and territories implementing this important reform by mid-2006.” Moreover Mr. Wilson stated that “Chain of Responsibility will allow authorities to investigate along the supply chain and up and down the corporate chain of command (Sullivan, 2005). The new approach will target those ultimately responsible for on-road breaches, rather than pursue the traditional 'soft targets' on the roadside – the driver or operator”. However, consultations regarding implementation of new legislations in Western Australia were finalized in September 2010 only due to differences with already implemented laws in the local transport sector (Council of Australian Governments, 2011).

Basically the new approach does not change any current responsibilities that industry participants should comply with. The existing laws in road industry already require taking responsibility for actions that may influence unsafe performance on the road such as section 167 of the Road Traffic Act 1961 or section 267 of the Criminal Law Consolidation Act 1935, which are applicable for situations when somebody cause or permit a road law offence;

as well as the Dangerous Substances Act 1979 which is relevant for situations when consignor/packer/loader/vehicle owner/prime contractor/manufacture actions have caused a breach of safety standards for dangerous goods by driver; and lastly the Road Traffic (Driving Hours) Regulations 1999 that are applicable for situation when consignor or employer actions have caused a breach of the driving hours by the driver.

Moreover, the main approach regarding comprehensive responsibility was borrowed by NTC from already existed and very well-known philosophy such as “duty of care” (was founded in 1932 in UK, “snail in a bottle” case *Donoghue v Stevenson* [1932] UKHL 100) (Centre for Community Child Health, 2006).

4. Comparison of Australian Chain of Responsibility to Other Countries

As mentioned in the previous chapters, Australia plays a leading role in implementation of Road Safety initiatives and other countries are considering Australian experience as good example for further development of regulations in Heavy Vehicle Industry. Based on the information regarding legislations and approaches in heavy vehicle sector that are available for public access, there are a few groups that can be defined in order to evaluate the level of the COR concept (sometimes using different words, but with the same meaning) implementation.

4.1 New Zealand

The next country that included COR rules to the transport industry laws is New Zealand (NZ). In 2007 the National Transport Agency (WAKA KOTAHI) initiated modernization of the Land Transport Amendment Act 2005 #77 (original version was founded in 1998). As a result, “Part 6C: Offences relating to chain of responsibility” was added to the main Act body and took force on 1st October 2007. The main objectives that are covered by the present amendment are:

- Identification of people/roles including third-parties users or customers that can potentially offence to cause or require driver to breach the current rules such as:
 - Speed limits;
 - Maximum work time;
 - Rest time requirements.
- Penalties scale (should not exceed \$25,000).

Such amendment of the transport laws and their utilization can be described by the collaboration approach of Australia and New Zealand in order to unify present legislations in all industries. As shown by the example of Australia and New Zealand, they presently exploit the common system of Standards (AUS/NZS) for every industry that is similar to the international standards (ISO).

Moreover, the National Transport Agency monitors any changes in Australian transport legislations on a permanent basis in order to compare industry performance especially in safety factor. The good example of such a process is “Comparing Safer Journeys Proposals with Australian Road Safety Initiatives”, a paper that has been published in 2009 (NZ Ministry of Transport, 2009).

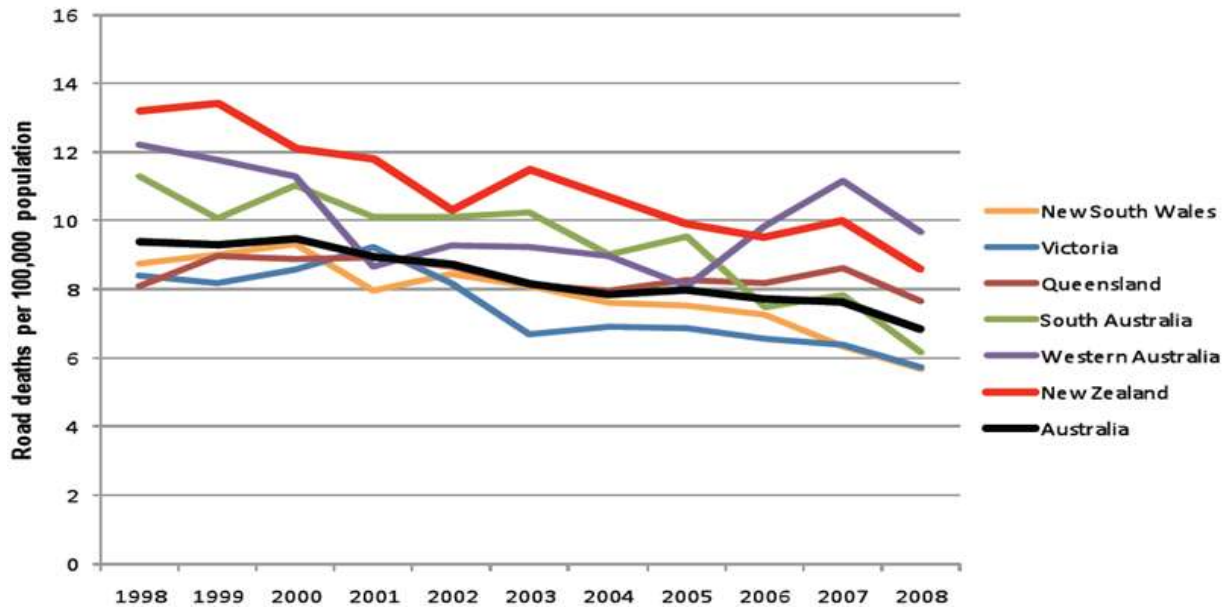


Figure 2 - Comparison of road death per 100,000 population in New Zealand and Australian states

Figure 4 compares tendency between NZ and Australian states in Road Death per 100,000 population for the decade period (1998 - 2008). The most remarkable trend that characterizes situation in transport industry is significant decrease in Road death in one year period (2007 - 2008). Undoubtedly, the direct effect from COR laws implementation can be considered as the main cause for such tendencies, while increased level of industry participants awareness needs to be taken into account.

Therefore it can be concluded that Australia and New Zealand will continue an integration process and regulations in transport industry will be revised and updated accordingly.

4.2 South Africa

South Africa and Canada represent the next group of counties that are still in a process of development and implementation of legislations that contain a COR approach for the transport industry or already utilizing such laws on local level (States and territories).

Based on the research results, South Africa (SA) can be considered as a country that will start to use new transport legislations that would consider liability of all transport industry players including third-parties in the coming future. Based on The South African National Road Agency vision and mission, the new Road Transport Management System (RTMS), should be implemented in 2012 (Nordengen and Pienaar, 2007). The main concept of the new complex approach is to consider and modify safety aspects and legal requirements for HVI in addition to existing Performance Base Standards (PBS).

Originally, the RMTS approach has been developed by the Council for Scientific and Industrial Research (CSIR) group with the assistance of consultants from the Mechanical System Dynamics Pty., Ltd. Australia and consideration of Australian regulator's experience such as National Transport Commission and Austroads (Nordengen, Prem and Mai, n.d.).

At the beginning stage, the forestry industry has been chosen as the most problematic sector where the current legislations and rules should be improved. The complex approach assisted the CSIR group to encourage operators, consignees and consigners as major players in Heavy Vehicle Industry to participate at the industry development process.

As a result, based on the research findings in forestry industry, CSIR decided to continue the research process and make recommendations for other sectors of transport industry. Such a holistic approach initiated a program that governs by Department of Transport and South African Bureau of Standards in order to develop new standards and regulations for the transport sector that should include the following principles:

- RTMS should be owned and driven by consigners, consignees and transport operators;
- “Chain of responsibility” concept needs to be implemented for optimization of heavy vehicle management;
- The new transport management system needs to be incorporated into existing certification process;
- The new approach should be focused on improvement of productivity along all sectors of logistics value-chain.

First time new approach of South African regulators has been presented to the international community by Paul Nordengen (CSIR representative) during “Transport Research Arena” international forum that took place in Ljubljana, Slovenia in 2008.

Unfortunately, at the current moment it is impossible to evaluate the level of success for COR approach implementation in South Africa new transport management system, due to the fact that all amendments of legislations for transport system are schedule on 2012. However, it is uncountable, that the new Road Transport Management System will increase level of understanding and care of all direct and indirect industry players.

4.3 Canada

Canada has a similar government structure as Australia and as a result Federal government delegates’ regulatory function in transport industry to the local governments. However, at the same time, there is a big difference between two countries in COR implementation issue.

At the current moment the Canadian Council of Motor Transport Administrators (CCMTA) has just finished formulation of a new Road Safety Strategy (RSS) 2015. Based on approach for the five years period (2010 - 2015) governments, road safety professional, operators, other industry stakeholders and the public are encouraged to Rethink Road Safety in the country and develop recommendations that can change driver’s behaviors and split responsibilities between parties concerned (CCMTA news Journal, 2011). The main vision of the discussed strategy is intention to have the world’s safest roads. Nevertheless, at the current moment such strategy doesn’t consider any real proposals for amendment of the current industry legislations.

At the same time Canadian regulators such as Council of Deputy Ministers responsible for Transportation and Highway Safety is considering experience of different countries in the speed regulation sector (Transport Canada, 2008). Moreover the regulator recognizes the Australian COR approach as one of the best alternative practices for transport industry regulation.

In addition, local governments are also trying to improve legislations in the heavy vehicle sector. The most proactive state in this activity is Québec province. As a result the local transport government issued an information paper: “Obligations of Heavy Vehicle Users” (2011 Edition) where considering owners, operators, drivers, transport service intermediaries, shippers, applicant for services and driver services providers under “heavy vehicle users” term (Morasse, 2011). Moreover, the information paper also contains clarification of the obligations of each industry participant including third-party representatives based on “Act Respecting Owners, Operators and Drivers of Heavy Vehicles” legislations that have been updated in 2005. Furthermore, the Act includes chapters with the penalties rates and conditions when such penalties apply.

Therefore, based on the described facts above, it can be concluded that Canada already has in place legislations for the heavy vehicle sector that have the same aim with the COR approach. Unfortunately, during the current research the effect level from the Act utilization hasn't been defined. However due to the RSS 2015 vision and holistic intention of Canadian community to improve safety situation, it is clear that federal, local and territory legislations for transport sector will be unified and role of the legislations in heavy vehicle sector will be considered on new (federal) level.

4.4 The United Kingdom

The issue is that due to geographical specific and other factors, UK regulators cannot apply any international legislation approaches without further amendment.

A good example of such tendency is the intention of local regulators to implement fatigue risk management systems in the transport industry, and amend the existing regulations. In 2010 the Department of Transport has initiated research in order to receive feedback from transport industry participants such as operators, regulators and researchers with experience in fatigue management (Fourie et al, 2010). At one of the stages of such research, the Australian experience in regulation of transport industry including heavy vehicle sector was reviewed. It has been concluded that the COR strategy has a very positive influence on the heavy vehicle sector performance and the researching group made a recommendation for the regulators to continue monitoring of the Australian case. Although the major concern that creates borders for the implementation of COR vision is the fact that due to geographical factor, UK's supply chain has a very close relationships with the continental Europe. Therefore it would be very difficult to manage transport industry in case when operators need to comply with the industry regulations and legislations that have completely different nature (for example COR concept and direct operator licensing). As a result local government doesn't have an intention to put heavy vehicle operators in unfair conditions in comparison with Europe Union (EU) operators.

At the same time the UK and EU still apply direct regulation processes such as operators licensing ('O' License) and as a result have only one instrument for the industry improvement. However, based on this approach heavy vehicle operators are focused on obtaining on 'O' license only and do not consider and adequate steps for the industry improvement. Moreover, “off-road” parties do not have any legal obligations and responsibilities for the elimination of activities that potentially can lead to the incidents on roads. As an example of the described weakness, the Transport Commission initiation UK government decided to develop a special budget for the “grant” system that will stimulate small players to leave heavy vehicle industry in order to improve over level of safety standards (Ironfield, 2001).

Therefore the United Kingdom can also be related to the group of countries that are actively working on improvement of legislations in transport sector and in heavy vehicle segment respectively.

4.5 International Organizations

As soon as the international community has the same intention to improve transport sector especially decreasing the number of deaths and injuries on roads, it would be good idea in addition to common understanding to develop common rules and legislations.

At the current moment the Organization for Economic Co-operation and Development (OECD) International Forum is the most focused organization on development of process and recommendations for the transport industry that can be utilized as the base for the new legislations development and implementation. Participants of the OECD international forum are actively discussing the possibility for regulatory and operational improvements in HVI by considering wider COR principle implementation. Therefore the issue regarding the importance of the COR principle as an alternative method of transport industry regulation has been included into the OECD's program of work for 2007 – 2009 (JTRC Program, 2007). In addition, representatives of OECD's Transport research center and other industry experts such as Jorgen Christensen, Barry Moore and Marten Johansson recommend to OECD community to utilize COR laws for the optimization of management processes and increasing level of awareness between all industry participants. Unfortunately, any facts of the results or development of new regulation processes haven't been defined during the current research.

5. Conclusion

The main purpose of the this article was to illustrate the most recent trends and approaches that have been implemented in Australia and internationally for consideration in the improvement of the safety aspects in HVI and to compare relevant experience in a heavy vehicle regulations segment. It is clear that the international community focuses on the improvement of safety issues on road transport and heavy vehicle segment is one of the most important parts in this industry. However, based on current industry approach it is very difficult to apply all road safety initiatives due to high level of off-road factors involvement.

Obviously, in many cases Australia, in order to improve heavy vehicles segment, is utilizing the similar approaches in comparison with other countries' experience. For example Australian regulator has the same intention as the US to develop and implement more-performance based regulatory concepts that will help to receive full picture regarding industry tendencies. However, many countries go further, and for example more than 80 per cent of OECD participants decided that the operator's activities has a major influence on the service level and safety aspect in HVI and as a result decided to focus on regulation of operator's performance.

In addition, based on growing international trends especially in the OECD countries, to remove any economic regulations from the Heavy Vehicle Industry regulators (governments and commission) are trying to reduce freight rates and improve productivity and service levels. However, at the same time different countries do not recognize the necessity to involve "off-road" participants to the improvement process.

Moreover the legislation portfolio that is applicable for the heavy freights industry in many countries, for example the South Africa, New Zealand, Canada, the UK and other countries and international organizations, directly or indirectly prove the above tendency that business

with heavy vehicle transport are fully responsible for the safety indicator of the industry performance. On the other hand, Australian's new Chain of Responsibilities approach, illustrates alternative methods that provide more comprehensive methods, and push responsibilities further to involve all parties that in real life involved into heavy vehicle sector in both "on-road" and "off-road" segments. Since Chain of Responsibilities laws came into effect Australian Road and Traffic Authority (RTA) June 2011 reports 690 charges to tucking operators, 685 to consignees, 512 charges to consigners and 188 to directors of the companies that involved into conducting of HVI (ATN 2011).

The main limitation of the current research is fact that it is based on theoretical papers available for public access. However, the recommendation for future study would be to conduct practical hands on analysis involving industry experts.

6. References

Australian Transport News. (2011), RTA 'Ambush' Exposes Truck Operator's COR Offences. ATN.

Bureau of Transport and Regional Economics: An overview of the Australian Road Freight Transport industry. (2003), Canberra: Commonwealth of Australia.

Department for Transport, Energy and Infrastructure (DTEI). (2007), Chain of Responsibility. Fact sheet 2. Safety and Regulation Division: Government of South Australia.

Federal Chamber of Automotive Industries. (2006), Report: Chain of Responsibility Guidelines for Dealerships. Canberra.

Fourie, C., A. Holmes, C. Hiditch, S. Bourgeois-Bougrine, P. Jackson. (2010), Interviews with Operators, Regulators and Researches with Experience of Implementing Fatigue Risk Management Systems. Road Safety Research Report No. 120. Department for Transport. London: Clockwork Research Ltd.

Industrial Relations Victoria. (2005), Report of Inquiry into Owner Drivers and Forestry Contractors. Volume 1. The State of Victoria: Department of Innovation, Industry and Regional Development.

Layden, P. McInty, K. and Moore B. (2004), National Transport Commission: Current Australian approaches to heavy vehicle accreditation and compliance for mass limits. Johannesburg, South Africa: 8th International Symposium on Heavy Vehicle Weights and Dimensions.

Learning from Others: An International Study on Heavy Truck Speed Limiters. (2008), Transport Canada. Vancouver: TC-1002762.

Ministry of Transport. (2009), Safe Journeys 2020 program: Comparing safer journeys proposals with Australian road safety initiatives. NZ, Auckland.

Newsletter of the Canadian Council of Motor Transport Administrator: "Rethink road safety: own it!" (2011), CCMTA news Journal 19 (1): 1, 4.

Nordengen. P., Prem. H. and L. Mai. An initiative to introduce a Performance-Based Standards (PBS) approach for Heavy Vehicle Design and Operations in South Africa. Johannesburg: CSIR

Raftery, SJ, Grigo JAL, and Woolley JE. (2011), Heavy vehicle road safety: Research scan. The University of Adelaide: CASR report series

Centre for Community Child Health. (2006), Duty of Care. What do we mean by “Duty of Care”? Vol. 9. #1. Centre for Community Child Health brochure.
Source: http://www.rch.org.au/emplibrary/ecconnections/CCH_Vol9_No1_March2006.pdf

Council of Australian Governments. (2011), Intergovernmental Agreement on Heavy Vehicle Regulatory Reform. Canberra. Source:
http://www.coag.gov.au/coag_meeting_outcomes/2011-08-19/docs/NHVR%20IGA-19August%202011.pdf

Department of Infrastructure and Transport. (2011), National Road Safety Strategy 2011 – 2020. Canberra: Australian Government.
Source:
http://www.infrastructure.gov.au/roads/safety/national_road_safety_strategy/index.aspx

JTRC Programme of Work. (2007), Joint OECD/ECMT Transport Research Centre. Paris: Organisation for Economic Co-operation and Development European Conference of Ministry of Transport.
Source: www.fehrl.org/?m=32&mode=download&id_file=812

Ironfield, D. (2001), Information Paper: Options for Regulation of the Road Freight Industry. Melbourne, Australia: National Road Transport Commission. Source: www.nrtc.gov.au

Mainfreight Ltd. Annual report: CFA Global Investment Research Challenge. (2009), Auckland, NZ. Source:
http://studentinvestmentclub.massey.ac.nz/documents/CFA%20Challenge/MFT_TeamC.pdf

Moore, Barry. (2001), An Integrated Approach to the Regulation of Heavy Vehicle Driver Fatigue. Melbourne, Australia: National Road Transport Commission. Source: www.nrtc.gov.au

Morasse. E. (2011), Obligations of Heavy Vehicle Users. 2011 Edition Direction des communications. Québec. Canada.
Source: www.saaq.gouv.qc.ca

Nordengen. P and Pienaar. N. (2007), The Road Transport Management System (RTMS): self-regulation initiative in Heavy Vehicle Transport in South Africa. Pretoria. South Africa: CSIR Built Environment. Source: <http://researchspace.csir.co.za>

NTC official web-site. Mission. Source: <http://www.ntc.gov.au/>

NZ Transport Agency. Official web-site: <http://www.nzta.govt.nz/>

Sullivan, Paul. 2005. Chain of Responsibility becomes law. Canberra: National Transport commission. Source: <http://www.ntc.gov.au/NewsDetail.aspx?newsid=149>