

INTERIM REPORT ON RAIL SAFETY REVIEW

Report of the Standing Committee on Transport, Infrastructure and Communities

Larry Miller Chair

JUNE 2014
41st PARLIAMENT, SECOND SESSION

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THE STANDING COMMITTEE ON TRANSPORT, INFRASTRUCTURE AND COMMUNITIES

has the honour to present its

THIRD REPORT

Pursuant to its mandate under Standing Order 108(2), the Committee has studied the Canadian transportation safety regime: transportation of dangerous goods and safety management systems and has agreed to report the following:

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INTRODUCTION

In Canada, the shipping of dangerous goods by all modes of transportation is generally considered to be very safe. Transport Canada estimates that there are approximately 30 million dangerous goods shipments by all modes every year, 99.998% of which arrive without incident. Mainline accident rates for the federally regulated railways have declined considerably since the *Canada Transportation Act* came into force in 1996, despite impressive growth in traffic. One of the drivers of railway traffic growth is shipments of crude oil, which increased from 500 carloads in 2009 to 160,000 carloads in 2013. This figure is expected to rise by another 73,000 carloads in 2014 and then to total of more than 510,000 carloads per year in 2016.

The devastation wreaked in Lac-Mégantic, Quebec in 2013 by a runaway train hauling crude oil drew worldwide attention to the potential consequences of rail accidents involving dangerous goods, however unlikely they may be. Almost all of the older, unprotected DOT-111 tank cars in the train were breached during the accident, even those travelling at only 20 mph (33 kph) at the end of the train. Of the fleet of 80,000 to 100,000 DOT-111 tank cars currently circulating on the integrated North American rail network, only 14,000 were built to the most recent design standards. The human, property and environmental losses caused by the accident in Lac-Mégantic have precipitated a thorough re-examination by government and industry of safety in the North American rail transportation system.

On 18 November 2013, the House of Commons Standing Committee on Transportation, Infrastructure and Communities ("the Committee") received a request from the Minister of Transport to review and report on the Canadian regime for the safe transportation of dangerous goods and the role of safety management systems (SMSs) across all modes of transportation. The Committee began its study by focusing on rail transportation and held 11 meetings to discuss the issues with stakeholders.

This interim report, which the Minister of Transport requested, provides an overview of what the Committee has learned to date (up to including its meeting on 6 May 2014) about the transportation of dangerous goods by rail and railway SMSs.⁸ It is focused on explaining the respective roles of the regulator and industry participants, as well as stakeholders' recommendations for improvements to the safety of the transportation of dangerous goods by rail and the effectiveness of SMSs in rail transportation. The Committee continues its study and will complete a final report with recommendations by the end of 2014, as requested by the Minister of Transport.

TRANSPORTATION OF DANGEROUS GOODS BY RAIL

The transportation of dangerous goods regime in Canada encompasses the entire supply chain for products identified as dangerous goods, not just railway facilities. The supply chain includes the producers and consumers of the regulated products, the transportation services and transfer points in between them, as well as the organizations that are involved in the production of the standardized means of containment used.

According to Transport Canada, there are 40,000 dangerous goods sites across all modes in Canada.⁹

A representative of Transport Canada told the Committee that the safe transportation of dangerous goods relies upon "properly classifying a dangerous good while ensuring the dangerous good is transported in the required means of containment, along with other safety measures such as emergency response assistance plans, or ERAPs, documentation, safety marks, reporting, and training." As such, Transport Canada (as the regulator), the shippers of dangerous goods and the railways each have areas of responsibility for the safety of dangerous goods shipments.

A. Transport Canada

Transport Canada is the regulator overseeing the transportation of dangerous goods for all modes under the *Transportation of Dangerous Goods Act, 1992*. Transport Canada also regulates railway safety generally in accordance with the *Railway Safety Act*.

1. Transportation of Dangerous Goods Act, 1992

The *Transportation of Dangerous Goods Act, 1992* regulates the transportation of dangerous goods by all federally regulated modes of transportation, including rail, air and marine, as well as interprovincial and international trucking. The *Transportation of Dangerous Goods Regulations* (TDG Regulations) under this Act require that anyone who imports, handles or transports a dangerous good respect a certain set of safety standards. The Act allows the Minister of Transport to issue Protective Directions to industry if they are deemed necessary to deal with an emergency that involves a danger to public safety. Criminal penalties, such as jail terms, may be imposed on anyone who contravenes the rules set out in the Act or its regulations.¹¹ In order to ensure the consistent implementation and oversight of the transportation of dangerous goods regime, agreements have been signed between the federal government and each province and territory.¹²

Transport Canada's Transportation of Dangerous Goods Directorate ensures that shippers, carriers and companies that make the means of containment for dangerous goods comply with the TDG Regulations through planned and random inspections, investigation and enforcement programs. As Transport Canada explained, the department prepares a risk-based inspection plan every year to identify and remedy potentially "non-compliant" manufacturers, producers, shippers and means of containment facilities. Particular attention is given to areas that pose the highest risk such as transloading facilities. Should someone be found in non-compliance with the regulations, Transport Canada inspectors have different enforcement tools at their disposal, varying from education to fines and prosecution, to ensure future compliance. The Directorate is also responsible for reviewing some 900 ERAPs that some shippers or importers of dangerous goods must file with the department in accordance with the Act.

Transport Canada currently has 35 dangerous goods field inspectors who conduct approximately 3,000 inspections of the 40,000 dangerous goods sites across all modes

per year.¹⁶ Inspections consist of examining the documentation related to the shipment, its classification, safety marks, means of containment, training and ERAP (if applicable).¹⁷ Transport Canada told the Committee that approximately 60% of the dangerous goods sites inspected were found to be compliant.¹⁸ Non-compliance refers to a wide range of infractions ranging from minor violations (e.g., information missing from a shipping document), for which the department might issue directions or a ticket, to major violations (e.g., using the wrong means of containment for a dangerous good) that might result in prosecution.

In the event of an accident, Transport Canada's Canadian Transport Emergency Centre (CANUTEC) is responsible for helping first responders at the accident scene. This centre, which is staffed by professional scientists specializing in emergency response and in interpreting technical information, operates 24 hours a day and handles approximately 30,000 inquiries per year.¹⁹

Transport Canada is responsible for registering and certifying all companies that design, manufacture, repair, test or requalify various means of dangerous goods containment such as tank cars. Whenever possible, the Canadian standards are aligned with those for dangerous goods in the United States to facilitate the seamless movement of goods between both countries. There are currently over 334,000 tank cars of all types (i.e., pressurized, non-pressurized, jacketed, non-jacketed, and insulated and non-insulated) in service on the North American railways. The DOT-111s, such as those involved in the Lac-Mégantic accident, are non-pressurized tank cars that are built to transport liquids ranging from water to the most volatile crude oil. As the railcars are engineered to be in service for 50 years, the DOT-111s in circulation today do not all have the protective features required by the latest design standards. The Chair of the Transportation Safety Board of Canada (TSB) told the Committee that they have noticed issues with the older DOT-111s in their investigations for the past 20 years.

After the accident in Lac-Mégantic, Quebec in July 2013, pursuant to the *Transportation of Dangerous Goods Act, 1992*, the Minister of Transport:

- issued Protective Direction 31 on 17 October 2013 which requires persons that import crude oil, or offer it for transport, to conduct classification testing and sampling and make the test results available to Transport Canada.²⁴
- issued Protective Direction 32 on 20 November 2013 which requires the principal freight railway companies to provide municipalities with annual totals reflecting the nature and volume of dangerous goods transported by rail through that community in each quarter.²⁵
- proposed regulatory amendments on 10 January 2014 that would require all new DOT-111 tank cars be built to the enhanced design standards adopted by the railway industry in 2011.²⁶

The Committee heard that the Railway Association of Canada, the Federation of Canadian Municipalities and the Canadian Association of Fire Chiefs were in favour of this Protective Direction and its focus on historical data, rather than future data, given that the volume and type of dangerous goods do not vary significantly from one month to the next.²⁷ For his part, the Mayor for the municipality of Sainte-Catherine-de-Hatley (Quebec) stressed the need for real time information, especially in cases where significant changes to the types or volumes of goods are expected.²⁸

On 23 April 2014, the Minister of Transport responded to the TSB's initial recommendations from the Lac-Mégantic accident and, pursuant to the *Transportation of Dangerous Goods Act, 2012*, announced:²⁹

- Protective Direction 34 which removed the least crash-resistant DOT-111 tank cars from dangerous goods service immediately;
- that other tank cars that do not meet the 2011 or any future standard will be phased out or retrofitted within three years;
- Protective Direction 33 which introduced ERAP requirements for crude oil, gasoline, diesel, aviation fuel and ethanol; and,
- a stakeholder taskforce to determine how to strengthen emergency response capacity across Canada.

Witnesses were generally supportive of the expansion of the ERAP program and the task force to strengthen emergency response capacity as these were among the TSB's recommendations. Although the TSB also recommended removing the DOT-111 tank cars from service as soon as possible, representatives of the rail car manufacturing industry and the shippers of dangerous goods (who own or lease the railcars) told the Committee that they are concerned about an accelerated retirement of the tank cars considering that less than 20% of the tank cars in circulation carrying dangerous goods in North America are built according to the new standards for dangerous goods service. Representatives from National Steel Car Limited explained that North American manufacturers could collectively build approximately 20,000 new tank cars every year and that there is currently a backlog of orders for new tank cars.

2. Railway Safety Act

The *Railway Safety Act* is the main safety legislation governing the operations of federally regulated railways. It authorizes the Minister of Transport to issue regulations, rules and Emergency Directives to improve the safety of all aspects of rail operations, including the transportation of dangerous goods.³² The Act also authorizes railway companies to develop safety and operating rules, which must be approved by the Minister of Transport.³³ Rules have the same force and effect as regulations, but regulations take precedence over rules.

A representative of the Freight Management Association of Canada told the Committee that the rule-making process under the *Railway Safety Act* is useful. His view was that rule making involves organized labour, allows for rapid introduction of new technology and operating methods and requires Transport Canada's approval.³⁴ Conversely, representatives of Unifor and the United Steelworkers raised issues with the adequacy of the consultation process that takes place before the department grants exemptions.³⁵ All union representatives who met with the Committee were concerned that railway companies may apply for, and receive, exemptions from the rules from the Minister of Transport.³⁶

Transport Canada has 116 rail safety inspectors who conducted 32,000 field inspections of railway operations to verify compliance with the legislative requirements in 2013.³⁷ Departmental officials told the Committee that they have trained some rail safety inspectors to also conduct dangerous goods inspections in order to integrate the inspection functions.³⁸ Transport Canada has a range of tools to enforce requirements under the *Railway Safety Act*, varying from citations to judicial penalties for major violations. Transport Canada has published provisions for new administrative monetary penalties under the *Railway Safety Act* in the *Canada Gazette Part I.*³⁹

In the aftermath of the accident in Lac-Mégantic, Quebec, the former Minister of Transport issued an Emergency Directive under the *Railway Safety Act* requiring railway companies to take additional safety measures with trains hauling dangerous goods. According to initial safety advisory letters from the TSB, the Montreal Maine & Atlantic Railway left trains unattended and unsecured on the main tracks and used single-person crews. The Emergency Directive therefore required railway companies to use two-person crews on these trains, to not leave them unattended on main track and to secure locomotives from unauthorized entry. Updated railway operating rules came into effect in December 2013 to replace the Emergency Directive. While the updated rules permit locomotives to be left unattended, there are new safety procedures in place for these situations to mitigate the risk. In April 2014, the Minister of Transport issued another Emergency Directive requiring railway companies to adopt new operating practices similar to those in place in the United States for certain trains carrying dangerous goods, including reduced speed and risk assessments for route planning.

B. Dangerous goods shipper responsibilities

The Committee heard from representatives from the industries that produce petrochemicals, fertilizers and other chemicals, which are among the dangerous goods transported in the largest volumes in Canada. These shippers assured the Committee that they comply with the *Transportation of Dangerous Goods Act, 1992* and the TDG Regulations by:

- properly classifying their dangerous goods prior to offering them for transport;
- training their employees to handle dangerous goods safely;

- inspecting and maintaining their railcars to the established standards;
- providing the required documentation to the railways when they offer their goods for transport; and,
- preparing ERAPs and providing them to CANUTEC and first responders after an accident.

These shippers also explained to the Committee the ways in which they share in the liability for accidents involving their products. The Committee learned that if an accident is found to be caused by factors under the shippers' control, the shipper is liable. Otherwise, the shippers' position is that "whoever has the care and responsibility of the goods, at any stage in the whole process, is the one who should be liable." Some representatives of the chemical shippers added that they pay the railways a substantial rate premium to haul their dangerous goods, which should compensate the railways for the additional risk relative to transporting other commodities. For these reasons, dangerous goods shippers were largely opposed to any suggestion that they take on a larger role in the liability regime.

Witnesses from the dangerous goods shipping community provided the Committee with examples of their voluntary initiatives – beyond what is required by regulation – to improve safety at their end of the dangerous goods supply chain. The associations representing some segments of the chemical industries in Canada have established codes of practice for safety that are mandatory for their members. As explained by a representative from the Chemistry Industry Association of Canada, the code of practice is really an ethic exemplified by either doing the right thing or going beyond what is required. Pepresentatives from the chemical shippers told the Committee that they participate in TRANSCAER, which is a non-regulated initiative to provide emergency response information to local authorities and to train first responders to deal with the dangerous goods they produce in case of an accident. The chemical shippers also have mutual-aid agreements to share any emergency response resources located closest to the scene of an accident and are in the preliminary stages of establishing a new single-entity response organization to help deal with rail incidents and spills.

C. Railway responsibilities

As mentioned in a previous section, the *Railway Safety Act* allows the railway companies to formulate rules on their own initiative or at the request of the Minister of Transport. The rules cover a broad range of topics having an impact on railway safety, including the maintenance of railway tracks and rolling stock and most aspects of operations. Some of the specific requirements for Canadian railways under the *Transportation of Dangerous Goods Act, 1992* are that they must situate the dangerous goods within their trains in a particular way, and modify their operating practices when hauling dangerous goods. The *Railway Safety Act* requires the railway companies to undertake risk assessments of affected routes and submit them to Transport Canada when there are significant changes in their operations. These risk assessments are actually part of the SMS requirements in the railway industry discussed later in this report.

As of April 2014, the railways must also respect the most recent Emergency Directive issued under the *Railway Safety Act* that calls for reduced operating speeds for trains hauling dangerous goods and risk assessments for route planning.

In case of an accident involving dangerous goods, every railway conductor has a detailed list of all the products being shipped on his or her train. A computer system also keeps track of the content of each car. Both Canadian National and Canadian Pacific have their own first responders who assist local firefighters in the event of an emergency. According to the President of Canadian Pacific Railway, railway conductors are trained in hazmat response. A representative from the United Steelworkers, a union which represents some railway employees, confirmed for the Committee that railway employees receive significant amounts of training on regulatory aspects of railway operations as well as the transportation of dangerous goods. See the content of the committee that railway operations as well as the transportation of dangerous goods.

The representatives of the railway companies who appeared before the Committee noted ways in which the companies go beyond regulatory requirements to ensure the safety of their operations. For example, as part of the voluntary TRANSCAER initiative with the chemical industry, the Railway Association of Canada expects to train approximately 2,500 firefighters in 2014.⁵³ The President of Canadian National Railway told the Committee that the company is respecting the special operating rules for certain trains hauling dangerous goods in the United States in its Canadian operations.⁵⁴ The Committee also heard that Canadian Pacific and Canadian National collaborate and share their resources and specialized equipment to decrease accident response times in urban areas such as Toronto, Montréal and Edmonton.⁵⁵ A representative of OmniTRAX, a railway serving northern Manitoba, reported that its trains carrying dangerous goods travel at a maximum speed of 5 mph (8 kmh) in some areas and that the railway proposes to include "initial response cars" in trains hauling crude oil.⁵⁶

Canadian railways are required to purchase third-party liability coverage to pay for any damages caused by their operations under the *Canada Transportation Act*. The Canadian Transportation Agency, the economic regulator for the federal transportation industry, determines the adequacy of third-party liability insurance coverage before issuing a Certificate of Fitness to the railway that permits it to operate. The Agency determines the adequacy of each federal railway's third-party liability insurance coverage according to factors contained in the *Railway Third Party Liability Insurance Coverage Regulations*. The Agency also makes this determination on a case-by-case basis and there is no minimum amount set out in the regulations. The Act requires railway companies to notify the Agency of changes to its operations that could result in their insurance coverage being inadequate.

The Agency is currently reviewing the regulations in order to ensure that the method for determining the required third-party insurance results in adequate coverage for each federal railway.⁵⁸

D. Witness recommendations for increasing the safety of the transportation of dangerous goods by rail

Witnesses made a number of recommendations to increase the safety of the transportation of dangerous goods by rail for the Committee's consideration.

1. Regarding Transport Canada policy

Some union representatives expressed concerns about the rule-making process in place under the *Railway Safety Act*. All unions who appeared before the Committee (i.e., Unifor, the United Steelworkers and Teamsters Canada) recommended that the rules should be the same for all railways. For example, that Montreal, Maine & Atlantic Railway had received an exemption from Transport Canada in order to run single-person crews on its trains is suspected to be a factor in the accident in Lac-Mégantic.

On behalf of its railway employee members who inspect and repair railcars and locomotives, Unifor recommended that railway companies should have more frequent, two-person inspections of rail cars. Furthermore, Unifor suggested that the rail mechanics should have the authority to cancel trips for railcars they determine to be unsafe, as do mechanics in the airline industry. Unifor also recommends that "Transport Canada should be responsible for licensing railcar mechanics or technicians who have spent 4 years or 8,000 hours in the trade as a TDG inspector."

The Mayor from the Municipalité de Sainte-Catherine-de-Hatley expressed concerns with the railways' practice of repeatedly reducing the maximum allowable speed on sections of railways to meet minimum regulatory requirements instead of making the investments necessary to improve the safety of the infrastructure. ⁶¹ For this reason, he recommended a federal review of cases of repeated speed reductions that are related to the condition of the infrastructure on a section of railway. ⁶²

The Canadian Association of Petroleum Producers suggested that Transport Canada's methodology for testing dangerous goods could be improved. The Association suggested that new regulatory mechanisms could help ensure that the proper testing is taking place at the appropriate transfer points.⁶³

2. Regarding means of containment – DOT-111 tank cars

The Chair of the TSB told the Committee that it has already identified issues with the DOT-111 tank cars built to the sturdier design standards adopted in 2011. For this reason, the TSB has suggested that Transport Canada consider even higher standards for the tank cars used for dangerous goods, such as those currently being proposed by the Association of American Railroads.⁶⁴

The Chemistry Industry Association of Canada and the Canadian Fertilizer Institute expressed doubts about the feasibility of Transport Canada's Protective Direction to remove the oldest DOT-111 tank cars from dangerous goods service immediately and its plan to retrofit other pre-2011 DOT-111s within three years. They recommended that

Transport Canada assess the capacity of the rail car industry to produce or retrofit new railcars, as well as maintain the existing ones, within the time frame specified. These and other witnesses also suggested that unilateral action by Canada on the tank cars would be a challenge, given that the railway system in North America is highly integrated and the tank cars cross the border constantly. The capacity of the rail car industry to produce or retrofit new railcars, as well as maintain the existing ones, within the time frame specified. These and other witnesses also suggested that unilateral action by Canada on the tank cars would be a challenge, given that the railway system in North America is highly integrated and the tank cars cross the border constantly.

3. Regarding emergency response

Most stakeholders who shared their views with the Committee were pleased that Transport Canada now requires ERAPs for shipments of additional types of flammable liquids and has set up a taskforce to enhance emergency response nationwide. That said, the Canadian Association of Petroleum Producers suggested that the current local and single shipper-importer type ERAP system should move towards a comprehensive national system that is run by the rail carriers. 67 The Association proposed that a single ERAP covering all types of crude oil would be the best way forward, rather than one for each type. 68 With respect to emergency response, the Canadian Association of Fire Chiefs recommended the implementation of a scalable national incident command system in Canada. 69 The Association also told the Committee that CANUTEC is a critical resource for first responders, especially in rural areas, but is sometimes unable to provide firefighters with information about the location and type of dangerous goods on the train.⁷⁰ While a train manifest is available in the cab of each locomotive, it is vital that CANUTEC receive all the information it needs to assist first responders during emergencies. To this effect, the Canadian Association of Fire Chiefs recommended providing more resources to CANUTEC so that it can better fulfil its role.

4. Regarding route planning and risk assessments

Some witnesses, such as the TSB and the Chemistry Industry Association of Canada, noted that there are fewer alternative routes for rail shipments in Canada than in the United States. Nonetheless, the TSB recommended that the railways be required to conduct route planning with risk assessments for trains carrying dangerous goods. Transport Canada responded to the TSB recommendation with its most recent Emergency Directive that requires, among other things, risk analysis of routes used by certain trains hauling dangerous goods.

Transport Action Canada noted that the abandonment of mainline track can reduce options for the routing of dangerous goods. Transport Action Canada recommended that the railways' decisions to abandon track be subject to a risk analysis.⁷⁴

The Auditor General of Canada reported that Transport Canada does not have enough information on dangerous goods flows to conduct risk assessments for its inspection program.⁷⁵ The Auditor General recommended that Transport Canada have: the railways' own risk assessments; information about the financial performance of the privately-owned railways; more information about the sections of track used to transport dangerous goods; and, information about the condition of the bridges.⁷⁶

5. Regarding third-party liability

Railway companies do not have the right to refuse transportation solely based on the type of good being shipped. A representative from Canadian Pacific Railway told Committee that railway companies have already secured as much liability insurance as is available to them and that the regulatory framework should be amended to increase the liability of shippers for the products they ship.⁷⁷ The railway would like to charge higher rates for transporting some dangerous goods or be able to refuse the shipments.

Representatives of the chemical industries told the Committee that they oppose transferring any of the railway liability for accidents involving dangerous goods to the chemical shippers because that might reduce the railways' incentive to minimize the risks of their operations. They did not dispute the fact that there was a limited pool of liability insurance that the railways have already exhausted, but did recommend that the premiums they pay for their shipments should be used to fund future railway liabilities rather than to pay shareholders. The chemical industries told the Committee that they oppose transferring any of the railway liabilities rather than to pay shareholders.

For the shortline railways with less capacity to purchase liability coverage than the larger rail carriers, some shippers proposed the development of a pooled liability model. This approach, according to the shippers, would allow smaller rail carriers to access a collective fund to ensure that they have access to funding for compensation that is comparable to the liability insurance that larger railways are able to secure.⁸⁰

If new liability requirements are to be imposed for all trains carrying dangerous goods, the Saskatchewan Association of Rural Municipalities recommended that the measures correlate to the level of risk that the railways represent (i.e., lower requirements on the lower risk shortline operations).⁸¹

Daniel Gardner, a law professor who has expertise in civil liability, recommended that Canada establish an automatic compensation system for railway accident victims.⁸² He suggested that this could be achieved by replicating the liability rules in place in air transportation.

6. Regarding transload facilities

With the projected increases in crude oil shipments by rail, it is not surprising that the number of rail transload facilities in Canada is set to steadily increase. One witness suggested that a new facility is approved each week in Saskatchewan, which would serve the oil producers in the Bakken formation straddling the Canada–U.S. border. Some witnesses recommended that the federal government undertake a review of the regulatory requirements for transload facilities to ensure that there is adequate coverage and consistency with respect to the different types of dangerous goods transfers. Another witness highlighted the fact that while the transfer of dangerous goods from rail to fixed storage fall under strict provincial regulations, the transfer between rail cars and trucks is not subject to any specific regulations. Based on witness testimony, another regulatory gap appears to exist in relation to transload facilities built on federal railway property.

7. Regarding harmonization with the United States

The Canadian Propane Association, the Canadian Association of Petroleum Producers and OmniTRAX Canada all expressed the need to ensure that any future amendments to Canadian TDG Regulations are harmonized with those in the United States.⁸⁶

SAFETY MANAGEMENT SYSTEMS IN RAIL TRANSPORTATION

Industries in which accidents can pose considerable danger to the public often take a systematic approach to identifying and controlling hazards to risk management that is similar to a safety management system (SMS). A number of high-risk industries in Canada, such as offshore drilling, nuclear energy, food processing, health care and transportation have created their own systemic "risk management" processes to make their operations safer. In a 2007 policy document, Transport Canada confirmed that the transportation industry would henceforth be accountable for proactively and systematically addressing risks within transportation activities and that the primary tool for doing so, where possible and practicable, would be SMSs. ⁸⁷ Transport Canada officials told the Committee that an "SMS builds on the principles of quality management that are already embraced by most of our transportation industries and provides them with a systematic way to identify hazards, control risks, and continually improve." Some provinces have followed the federal example and adopted the SMS approach to safety.

A. Transport Canada's role in railway SMSs

The following sections provide a summary of what the Committee heard regarding Transport Canada's responsibilities for rail SMSs from Transport Canada and other stakeholders.

1. Legislative framework

As mentioned previously, Transport Canada administers the *Railway Safety Act*, which is the main safety legislation governing the operations of federally regulated railways..⁹⁰ The *Railway Safety Management System Regulations* under the Act, introduced in 2001, require railway companies to have a formal plan for assessing and managing risks in their operations and be accountable for it.⁹¹ Among other things, the regulations require a railway company to involve employees and their representatives in the development and implementation of the SMS, as well as to make annual submissions to the Minister of Transport describing the company's risk management processes and control strategies.⁹² The regulations allow for the railway's SMSs to vary in size and complexity, depending on the railway's operations.

In 2012, the Safer Railways Act amended the Railway Safety Act, creating new regulation-making powers with respect to the railway companies' SMSs. The amendments gave the Governor in Council the authority to include new requirements in the Railway Safety Management System Regulations for: whistle-blower protection for employees who raise safety concerns; continuous monitoring and assessment of the level

of safety achieved by the railway company; and railway companies to appoint an executive legally responsible for safety. Transport Canada has not proposed new regulations yet but departmental officials told the Committee that it expects to pre-publish regulations before summer 2014.⁹⁴

Despite the challenges inherent in the implementation of SMSs in the railway industry for both the railway companies and Transport Canada, many witnesses supported persevering with the SMS approach in Canada. Most notably, the Chair of the TSB called the SMS approach a "very good tool, one that helps to find the biggest risks so that mitigating steps can be taken." The TSB also told the Committee that it expects to see risk in the rail system go down as a result of SMSs in the long term, if not in the short term. A representative of Transport Action Canada told the Committee that his organization "strongly supported the introduction of safety management systems" but also was concerned whether smaller rail companies, such as the shortlines, have the resources to implement one.

One reason SMSs do not have an immediate positive impact on accident rates in an industry is that it takes time for a culture of safety to develop at the organization level, which is necessary for the SMS to be effective. According to the Railway Safety Act Review Panel, a safety culture "is one in which safety values are firmly entrenched in the minds of managers and employees at all operational levels, and respected on a daily basis in the performance of their duties." In response to the Railway Safety Act Review Panel Report, Transport Canada established a Safety Management System Working Group in 2008 with representatives from the industry, unions and the department. The Working Group established a definition of "safety culture" for the industry as well as a list of key practices that support a safety culture and a checklist for industry to assess its safety culture.

Professor Mark Fleming, an organizational psychologist and CN Professor of Safety Culture at Saint Mary's University, explained to the Committee how an organization's safety culture "provides the energy or drive to bring the safety management system to life." Professor Fleming suggested that the leaders of an organization are ultimately responsible for the safety culture of the organization. He also said that the behaviour and perceptions of front-line employees are the best indicators of whether the leaders are committed to the safety culture of an organization. ¹⁰¹

One, if not the most, important outcome of a strong safety culture is that it leads to ongoing improvements in safety. According to Professor Fleming, continuous improvement requires "a clear vision of the desired safety culture, clearly articulated rules for key groups such as managers, specific activities to promote the desired culture, ongoing safety culture assessments, auditing and program review." In an organization with a well-entrenched safety culture, front-line employees will not hesitate to report any hazards they observe and their reports are escalated to the highest levels of management. The representative of Transport Action Canada noted that the regenerative quality of a mature safety culture is easier to achieve if there is non-punitive reporting within an organization. ¹⁰³

A representative of Unifor, a union whose members inspect and maintain railcars and locomotives, suggested that rail SMSs are secretive and that they are the wrong approach to safety. While a number of safety experts who spoke with the Committee did not think it is possible to achieve zero risk, the Unifor representative told the Committee that its members oppose an approach that aims to simply reduce hazards rather than eliminate them altogether. Furthermore, Unifor is of the view that SMSs have given the railways new administrative processes to justify undertaking risky operations. Teamsters Canada told the Committee that a strong safety culture is impossible to achieve at the railways because of the disciplinary nature of the workplace. 106

Some witnesses suggested that the SMS approach to safety amounts to deregulation. In earlier testimony, Transport Canada officials had reassured the Committee that this assessment is common but not accurate, given that the SMS requirements are themselves regulations and that no regulations have been removed since SMS was introduced. In the SMS was introduced.

2. Guidance, oversight and enforcement

Transport Canada is responsible for ensuring that 31 federal railways comply with the regulatory framework for rail safety, including taking enforcement action when required. On another 39 railways will come under Transport Canada's jurisdiction when the SMS regulations are amended. In order to assist railways of all sizes with the transition to SMS, the department has provided guidance documents on its website.

SMSs require intense administrative oversight by the regulator, supported by traditional safety inspections in the field, to enforce the rules and regulations. Transport Canada must periodically audit the railway companies' SMSs to verify that all components are in place. When Transport Canada finds non-compliance with the SMS regulations, it requests a corrective action plan from the organization that also identifies the root-cause of the failure. In non-compliance with the regulations continues, Transport Canada can begin enhanced monitoring of the organization or employ other enforcement tools. The department aimed to complete 9 to 12 SMS audits in 2013 and conducted 32,000 traditional inspections over the same period. With respect to traditional inspections, Transport Canada told the Committee that the railways' SMSs "allow the department to prioritize and target its resources towards areas that pose the greatest risk and require the most attention."

The Auditor General of Canada told the Committee that there are still significant weaknesses in Transport Canada's oversight and enforcement of SMSs in the rail industry, even though the regulatory framework has been operational since 2001. The Auditor General recently determined that Transport Canada had completed only 26% of its planned audits of the railways' SMSs over a three-year period and those that were completed were too narrowly focussed. Furthermore, Transport Canada was unable to demonstrate that the necessary follow-up inspections had been conducted when their audits revealed problems in the railways' SMSs. The Auditor General told the Committee that "based on what we saw we felt [Transport Canada has] not yet put in place a system that is sufficiently robust to give them the level of assurance they need to

know that those safety systems are operating safely."¹¹⁷ The Auditor General also found that approximately 40% of Transport Canada rail inspectors have yet to undergo the training required to perform audits, and the department lacks risk data to properly target higher-risk operations as well as the most significant safety risks. ¹¹⁸ The independence and objectivity of Transport Canada's inspectors, many of whom have links to the rail industry, was also highlighted as an area of concern. ¹¹⁹

Given that Transport Canada will soon be responsible for overseeing many more railway companies' SMSs, the Auditor General noted "the challenge isn't getting smaller. The challenge is getting bigger." The Auditor General declined to comment on whether the department has enough resources to do its job but he did note that "they haven't done the analysis themselves to know how many resources they need to complete the work."

In response to the Auditor General of Canada's findings, Transport Canada prepared a detailed Management Action Plan which sets out how the department intends to address the Auditor General's recommendations over the next two years and submitted it to the Committee. Among other things, Transport Canada's action plan includes: providing the appropriate training to all inspectors and managers who have yet to receive SMS audit training by the spring of 2014; fully implementing the department's Rail Safety Integrated Data collection system by the fall of 2014; updating Transport Canada's audit and self-assessment procedures by the spring 2015; and introducing new legislation to address a number of previously identified gaps in the regulatory framework of rail safety by the fall of 2015.

The Chair of the Transportation Safety Board told the Committee that she agrees with the Auditor General's assessment of the importance of strong regulatory oversight and enforcement to ensure compliance and that the railways "are netting all of the safety benefits they should." 122

B. Railway SMS activities

Transport Canada officials outlined for the Committee the minimum actions or processes that the industry must undertake to comply with the SMS regulations. These processes include hazard identification, incident reporting, performance measurement, employee involvement, management commitment and mechanisms for continuous improvement in safety performance. If a railway company transports dangerous goods, then there must be a dangerous goods component in its SMS.

The representatives of the railway companies who met with the Committee described the ways in which their leaders are working on the safety culture in their organizations. They each described how railway executives participate regularly in safety activities, from reviewing safety reports daily to attending frequent safety committee meetings. The railways' representatives also told the Committee that unionized employees are involved in all of the organizational safety committees. Both Canadian National Railway and VIA Rail representatives outlined how they constantly monitor their employees' performance and provide safety training. The President of Canadian Pacific Railway told the Committee that he reviews safety reports daily and that the organization is

studying operational data to improve safety at the railway. The representatives of VIA Rail told the Committee that it had engaged a third-party auditor to verify the resiliency of the company's SMS.¹²⁵ Transport Canada made the observation that the railway companies are more focussed on safety today than they were in the past and particularly since the *Railway Safety Act* Review in 2007. ¹²⁶

The union representatives have a different perspective on SMSs than do the railways. The representative of Teamsters Canada told the Committee that its members are not involved in SMS development at railways where its members work, and do not know what is in the SMSs or how SMSs manage safety. The representative of Unifor mentioned that its members participate in risk assessments and sit on policy committees, but have no real influence. 128

The President of Canadian Pacific Railway told the Committee that using on-board voice and video recordings from locomotives in the SMS would be "the most important step that can be taken at the immediate time to further improve safety." The Railway Association of Canada told the Committee that it is working on developing principles for using the recordings.

In 2013, Transport Canada established a working group to study the use of on-board voice and video recorders in locomotives. The Minister of Transport accepted the working group's recommendation to encourage railways to make the investments on a voluntary basis. VIA Rail is the only railway that has installed outward cameras and is currently testing in-cab cameras to be used within its SMS. VIA Rail and its unions are trying to come to an agreement on how the data can be used to help locomotive drivers do their job and strengthen the company's SMS.

C. Witness recommendations

1. Regarding the legislative framework for SMS

Some of the witness recommendations to improve railway safety would involve making changes to the existing legislative framework, such as the *Railway Safety Management System Regulations*. The Auditor General suggested that rail safety and SMSs could be strengthened if the railways were required to provide Transport Canada with information on their financial performance, the conditions of the tracks used to transport dangerous goods, as well as their internal risk assessments. The United Steelworkers recommended that there be stronger collaboration between railway companies and their workers in the development of SMSs. Teamsters Canada agreed that interviews with, and surveys of, rail employees about their perceptions of safety should be mandatory. On this point, organizational psychologist, Professor Mark Fleming, encouraged surveying employees regularly but cautioned against measuring anything without a concrete plan for improvement. All unions representing railway employees recommended that it would be in the public interest for railway companies' SMSs to be public. Transport Canada explained to the Committee that it cannot share the railways' SMSs with the public on its own initiative because it is

third-party information.¹³⁷ In light of this, VIA Rail, a federal Crown corporation, has offered to share its SMS with the Committee.

2. Regarding oversight and enforcement

The Auditor General of Canada has recommended, and the Committee has agreed, that the Committee follow up on the department's progress with respect to its new action plan before the 2016 deadline. The Committee intends to hold its first hearing on this issue before the summer of 2014. The Auditor General also recommended that Transport Canada define the SMS audit methodology better and undertake analysis to gain a better understanding of its resource requirements to provide adequate rail safety oversight. See 139

3. Regarding on-board voice and video recorders

While VIA Rail is working with its unions to use on-board recordings on a voluntary basis, Canadian Pacific Railway has recommended making amendments to the sections of the *Canadian Accident Investigation and Transportation Safety Board Act* that prohibit the use of on-board recordings for anything but accident investigation to allow them to use the recordings in their SMSs. ¹⁴⁰ To that point, two of the railway unions who met with the Committee indicated that they support using voice and video recordings provided that they are only used by the TSB for accident investigations. ¹⁴¹

FINAL PHASE OF THE STUDY

As the Committee continues its study, it will invite more witnesses before completing its final report on its Review of the Canadian Transportation Safety Regime at the end of 2014. The Committee intends to invite stakeholders from the air, marine and surface modes to learn about the status of SMSs in their industries, as well as to receive recommendations about how to make the transportation of dangerous goods in Canada safer. The Committee will also invite more rail industry stakeholders to clarify and elaborate on certain issues related to the transportation of dangerous goods and SMSs that witnesses raised during the course of the study. For example, the Committee would like to learn more about the range of suggestions dealing with the third-party liability regime that currently applies to railway accidents involving dangerous goods. Another topic of particular interest for members of the Committee, but on which there was insufficient or incomplete information, was the regulatory regime that governs the location and construction standards of rail transload facilities for dangerous goods. The Committee also has not yet had a comprehensive discussion about the regulatory regime for the transportation of dangerous goods and rail safety in the United States. In addition, the discussion about work/rest rules for railway employees and fatigue management generally, although limited, indicated that there may be some work to be done on this issue. Finally, this Committee believes that travel to the Bakken region of North Dakota and to locations across Canada, especially to Lac-Mégantic, is relevant and necessary to completing our study. This is consistent with items outlined in the Committee's Minutes of Proceedings of 2 December 2013 and 9 December 2013; but will require the Official Opposition to cease denying consent in the House for committee travel.

- House of Commons, Standing Committee on Transport, Infrastructure and Communities (TRAN), <u>Evidence</u>, 2nd Session, 41st Parliament, 27 November 2013, 1530 (Gerard McDonald, Assistant Deputy Minister, Safety and Security, Department of Transport). There were 358 reported accidents involving dangerous goods in 2012.
- 2 Hereafter references to railway companies means federally regulated railways.
- Canada Transportation Act Review Panel, <u>Vision and Balance: Report of the Canada Transportation Act Review Panel</u>, Ottawa, 2001, p. 88.
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 1 April 2014, 0845 (Wendy Tadros, Chair, Transportation Safety Board of Canada).
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 10 April 2014, 0900 (Bob Bleaney, Vice-President, External Relations, Canadian Association of Petroleum Producers). The witness' projection of barrels of crude oil per day were converted to carloads per year, assuming that each tank car can hold approximately 500 barrels of crude.
- 6 TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 April 2014, 0900 (Wendy Tadros).
- 7 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 27 March 2014, 1010 (Jamal Hematian, Vice-President, Product Engineering, National Steel Car Limited).
- There are some rail safety issues upon which the Committee heard testimony, but that are not central to the safety management systems approach or implementation, nor issues that are specific to the transportation of dangerous goods. Therefore, they have not been included in the interim report. Examples of such issues would include accidents at grade crossings, trespassing accidents and positive train control.
- 9 TRAN, <u>Evidence.</u> 2nd Session, 41st Parliament, 27 November 2013, 1530 (Marie-France Dagenais, Director General, Transportation of Dangerous Goods, Department of Transport).
- 10 TRAN, *Evidence*, 2nd Session, 41st Parliament, 27 November 2013, 1530 (Gerard McDonald).
- 11 Ibid.
- 12 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 27 November 2013, 1530 (Marie-France Dagenais).
- 13 TRAN, *Evidence*, 2nd Session, 41st Parliament, 27 November 2013, 1615 (Gerard McDonald).
- 14 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 27 November 2013, 1530 (Marie-France Dagenais).
- 15 Ibid., 1635.
- 16 Ibid., 1720 and 1530.
- 17 Ibid.
- 18 Ibid., 1720.
- 19 Ibid.
- 20 Ibid., 1530.
- 21 Ibid., 1655.
- 22 TRAN, *Evidence*, 2nd Session, 41st Parliament, 27 March 2014, 0845 (Jamal Hematian).
- 23 TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 April 2014, 0855 (Wendy Tadros).
- Transport Canada, "<u>Harper government acts to increase safety in the transportation of dangerous goods</u>", *News Release*, 17 October 2013.

- 25 Transport Canada, "<u>Harper government acts to increase transportation of dangerous goods information sharing between rail companies and municipalities</u>", *News Release*, 20 November 2013.
- Government of Canada, "<u>Transport Canada moves to further improve the safe transportation of dangerous goods</u>", *News Release*, 10 January 2014.
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 27 November 2013, 1615 (Gerard McDonald); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 1 May 2014, 1005 (David Marit, President, Saskatchewan Association of Rural Municipalities); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 1 May 2014, 1010 (Jacques Demers, Mayor, Municipalité de Sainte-Catherine-de-Hatley).
- 28 TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 May 2014, 0900 (Jacques Demers).
- Transport Canada, "<u>Transport Canada takes action in response to TSB's initial Lac-Mégantic recommendations</u>", *News Release*, 23 April 2014.
- 30 TRAN, *Evidence*, 2nd Session, 41st Parliament, 27 March 2014, 1000 (Jamal Hematian).
- 31 Ibid., 0910 and 1020.
- 32 Railway Safety Act, R.S.C., 1985, c. 32 (4th Supp.).
- 33 Transport Canada, Rules.
- 34 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 29 April 2014, 0900 (Robert Ballantyne, President, Freight Management Association of Canada).
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 27 March 2014, 0905 (Richard Boudreault, Area Coordinator, United Steelworkers); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 8 April 2014, 0915 (Jerry Dias, National President, Unifor).
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 27 March 2014, 0900 (Richard Boudreault); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 8 April 2014, 0945 (Brian Stevens, Director, Rail, Unifor); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 29 April 2014, 0905 (Phil Benson, Lobbyist, Teamsters Canada).
- 37 TRAN, *Evidence*, 2nd Session, 41st Parliament, 27 November 2013, 1625 (Luc Bourdon, Director General, Rail Safety, Department of Transport).
- 38 Ibid., 1655.
- 39 <u>Railway Safety Administrative Penalties Regulations</u>, Canada Gazette, Part I, Vol. 148, No. 20, 17 May 2014.
- Transport Canada, "Safety and Security of Locomotives in Canada", Emergency Directive Pursuant to Section 33 of the Railway Safety Act.
- Transportation Safety Board of Canada, <u>Safety Advisory letter to Transport Canada on the securement of unattended locomotives</u>, Rail Safety Advisory Letter 08/13, 19 July 2013; Transportation Safety Board of Canada, <u>Securement of Equipment and Trains Left Unattended</u>, Rail Safety Advisory Letter 09/13, 19 July 2013.
- Transport Canada, "<u>Updated Canadian Rail Operating Rules (CROR)</u>", New definition used in the application of new Rule 62 and revised Rule 112 in the Canadian Rail Operating Rules.
- Transport Canada, "Emergency Directive Pursuant to Section 33 of the Railway Safety Act Rail Transportation of Dangerous Goods", Ministerial Orders, Directives / Directions and Response Letters.
- 44 TRAN, *Evidence*, 2nd Session, 41st Parliament, 29 April 2014, 1035 (Robert Ballantyne).
- 45 Ibid.

- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 6 May 2014, 0900 (Marty Cove, Manager, Logistics, Canexus Corporation, Chemistry Industry Association of Canada); 0920 (Roger Larson, President, Canadian Fertilizer Institute).
- 47 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 10 April 2014, 0925 (Bob Bleaney and Greg Stringham, Vice-President, Oil Sands and Markets, Canadian Association of Petroleum Producers).
- The Chemistry Industry Association of Canada has Responsible Care, the Canadian Association of Chemical Distributors has Responsible Distribution and the Canadian Fertilizer Institute has its own codes of practice for anhydrous ammonia and ammonium nitrate.
- 49 TRAN, *Evidence*, 2nd Session, 41st Parliament, 6 May 2014, 0900 (Marty Cove).
- 50 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 10 April 2014, 0850 (Peter Boag, President and Chief Executive Officer, Canadian Fuels Association); 0955 (David Pryce, Vice-President, Operations, Canadian Association of Petroleum Producers).
- 51 TRAN, *Evidence*, 2nd Session, 41st Parliament, 3 April 2014, 0940 (Keith Creel, President and Chief Operating Officer, Canadian Pacific Railway).
- 52 TRAN, *Evidence*, 2nd Session, 41st Parliament, 27 March 2014, 1005 (Richard Boudreault).
- 53 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 3 April 2014, 0845 (Michael Bourque, President and Chief Executive Officer, Railway Association of Canada).
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 3 April 2014, 0900 (Jim Vena, Executive Vice-President and Chief Operating Officer, Canadian National Railway Company). Mr. Vena was referring to the Association of American Railroads Circular OT-55. Since his appearance, Transport Canada announced similar operating rules in an Emergency Directive under the *Railway Safety Act*.
- 55 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 3 April 2014, 0940 (Michael Farkouh, Vice-President, Safety and Sustainability, Canadian National Railway Company and Keith Creel).
- 56 TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 May 2014, 0920 (Mervin Tweed, President, OmniTRAX Canada).
- 57 Railway Third Party Liability Insurance Coverage Regulations (SOR/96-337).
- Canadian Transportation Agency, <u>Review of the Third Party Liability Insurance Coverage</u>
 Regulations.
- 59 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 27 March 2014, 0915 (Richard Boudreault); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 8 April 2014, 0920 (Jerry Dias); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 29 April 2014, 0935 (Phil Benson).
- TRAN, *Evidence*, 2nd Session, 41st Parliament, 8 April 2014, 0900 (Jerry Dias).
- 61 TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 May 2014, 0905 (Jacques Demers).
- 62 Ibid., 0945.
- TRAN, *Evidence*, 2nd Session, 41st Parliament, 10 April 2014, 1010 (David Pryce).
- TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 April 2014, 0910 (Wendy Tadros).
- 65 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 6 May 2014, 0845 (Fiona Cook, Director, Business and Economics, Chemistry Industry Association of Canada); 1015 (Roger Larson).
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 1 April 2014, 0855 (Wendy Tadros), TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 27 March 2014, 0910 (Jamal Hematian).
- 67 TRAN, *Evidence*, 2nd Session, 41st Parliament, 10 April 2014, 0910 (Bob Bleaney).

- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 10 April 2014, 1035 (David Pryce).
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 29 April 2014, 0850 (Paul Boissonneault, Fire Chief, County of Brant Fire Department, and First Vice-President, Canadian Association of Fire Chiefs).
- 70 Ibid., 1015.
- 71 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 6 May 2014, 0910 (Marty Cove); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 1 April 2014, 0855 (Wendy Tadros).
- 72 TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 April 2014, 0940 (Wendy Tadros).
- 73 Transport Canada, <u>R13D0054 Transport Canada response to the TSB initial safety recommendations resulting from the ongoing investigation into the rail accident in Lac-Mégantic, Quebec on July 6, 2013, 2014 TSB Recommendations & TC Responses, 23 April 2014.</u>
- 74 TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 April 2014, 1010 (David Jeanes, President, Transport Action Canada).
- 75 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 4 December 2013, 1615 (Michael Ferguson, General of Canada, Office of the Auditor General of Canada).
- 76 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 4 December 2013, 1615 (Régent Chouinard, Principal, Office of the Auditor General of Canada).
- 77 TRAN, *Evidence*, 2nd Session, 41st Parliament, 3 April 2014, 0925 (Keith Creel).
- 78 TRAN, *Evidence*, 2nd Session, 41st Parliament, 6 May 2014, 0850 (Roger Larson); 0900 (Marty Cove).
- 79 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 6 May 2014, 0935 (Fiona Cook); 0920 (Roger Larson).
- 80 TRAN, *Evidence*, 2nd Session, 41st Parliament, 10 April 2014, 0925 (Greg Stringham).
- 81 TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 May 2014, 0845 (David Marit).
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 1 April 2014, 0855 (Daniel Gardner, Professor, Law Faculty, Université Laval).
- 83 TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 May 2014, 0940 (David Marit).
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 10 April 2014, 0845 (Andy Bite, Chief Development Officer, Canadian Propane Association).
- 85 Ibid., 1005.
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 10 April 2014, 0845 (Andy Bite); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 10 April 2014, 0900 (Bob Bleaney); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 1 May 2014, 0855 (Mervin Tweed).
- 87 Transport Canada, <u>Moving Forward Changing the Safety and Security Culture (A Strategic Direction for Safety and Security Management)</u>, Catalogue No. T22-135, Ottawa, 2007.
- 88 TRAN, *Evidence*, 2nd Session, 41st Parliament, 25 November 2013, 1535 (Gerard McDonald).
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 25 November 2013, 1555 (Luc Bourdon, Director General, Rail Safety, Department of Transport).
- 90 Railway Safety Act, R.S.C., 1985, c. 32 (4th Supp.).

- Justice Laws Website, <u>Railway Safety Management System Regulations (SOR/2001-37)</u>, Consolidated Regulations. For more information, see Allison Padova, <u>Safety Management Systems: A Better Approach for Transportation?</u>, In Brief No. 2013-77-E, Parliamentary Information and Research Service, Library of Parliament, Ottawa, 15 August 2013.
- 92 Railway Safety Management System Regulations, SOR/2001-37.
- 93 <u>Safer Railways Act</u>, S.C 2012, c. 7. The Act was introduced as Bill S-4 in the 1st Session of the 41st Parliament and received Royal Assent on 17 May 2012.
- 94 TRAN, *Evidence*, 2nd Session, 41st Parliament, 25 November 2013, 1600 (Luc Bourdon).
- 95 TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 April 2014, 0850 (Wendy Tadros).
- 96 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 1 April 2014, 0920 (Kathy Fox, Chair, Transportation Safety Board of Canada).
- 97 TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 April 2014, 0945 (David Jeanes).
- Canada. Advisory Panel for the Railway Safety Act Review, Stronger ties: a shared commitment to railway safety: review of the *Railway Safety Act*, Ottawa, 2007, p. 68.
- 99 Transport Canada, "Railway Safety Act Review Steering Committee", Rail Safety.
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 8 April 2014, 0905 (Mark Fleming, Professor, Department of Psychology, Saint Mary's University).
- 101 Ibid., 0930.
- 102 Ibid., 0905.
- 103 TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 April 2014, 1035 (David Jeanes).
- 104 TRAN, *Evidence*, 2nd Session, 41st Parliament, 8 April 2014, 0905 (Jerry Dias).
- 105 Ibid.
- 106 TRAN, *Evidence*, 2nd Session, 41st Parliament, 29 April 2014, 0935 (Phil Benson).
- 107 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 29 April 2014, 0905 (Phil Benson); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 1 May 2014, 0915 (Emile Therien, Past President, Canada Safety Council, as an individual).
- 108 TRAN, *Evidence*, 2nd Session, 41st Parliament, 25 November 2013, 1620 (Gerard McDonald).
- 109 TRAN, *Evidence*, 2nd Session, 41st Parliament, 4 December 2013, 1535 (Michael Ferguson).
- 110 Ibid.
- 111 Transport Canada, "Guide for Developing, Implementing and Enhancing Railway Safety Management Systems", Publications.
- 112 TRAN, *Evidence*, 2nd Session, 41st Parliament, 25 November 2013, 1640 (Gerard McDonald).
- 113 Ibid.
- 114 Ibid., 1535.
- 115 TRAN, *Evidence*, 2nd Session, 41st Parliament, 4 December 2013, 1535 (Michael Ferguson).
- 116 Ibid., 1630 and 1635.
- 117 Ibid., 1645.
- 118 Ibid., 1535.
- 119 Ibid., 1630 and 1635.

- 120 Ibid.
- 121 Ibid., 1555.
- 122 TRAN, *Evidence*, 2nd Session, 41st Parliament, 1 April 2014, 0850 (Wendy Tadros).
- 123 TRAN, *Evidence*, 2nd Session, 41st Parliament, 25 November 2013, 1535 (Gerard McDonald).
- 124 Ibid., 1610.
- 125 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 8 April 2014, 0850 (Jean Tierney, Senior Director, Safety and Corporate Security, VIA Rail Canada Inc.)
- 126 TRAN, *Evidence*, 2nd Session, 41st Parliament, 27 November 2013, 1640 (Gerard McDonald).
- 127 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 29 April 2014, 0910 (Rex Beatty, President, Teamsters Canada Rail Conference, Teamsters Canada).
- 128 TRAN, *Evidence*, 2nd Session, 41st Parliament, 8 April 2014, 0935 (Brian Stevens).
- 129 TRAN, *Evidence*, 2nd Session, 41st Parliament, 3 April 2014, 0850 (Keith Creel).
- 130 Transport Canada, "Railway Safety Act Review Steering Committee", Rail Safety.
- 131 TRAN, *Evidence*, 2nd Session, 41st Parliament, 8 April 2014, 0850 (Denis Pinsonneault, Chief, Customer Experience and Operating Officer, VIA Rail Canada Inc.)
- 132 TRAN, *Evidence*, 2nd Session, 41st Parliament, 4 December 2013, 1615 (Régent Chouinard).
- 133 TRAN, *Evidence*, 2nd Session, 41st Parliament, 27 March 2014, 0900 (Richard Boudreault).
- 134 TRAN, *Evidence*, 2nd Session, 41st Parliament, 29 April 2014, 0935 (Rex Beatty).
- 135 TRAN, *Evidence*, 2nd Session, 41st Parliament, 8 April 2014, 0910 (Mark Fleming).
- TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 29 April 2014, 0905 (Phil Benson); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 27 March 2014, 0900 (Richard Boudreault); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 8 April 2014, 0905 (Jerry Dias).
- 137 TRAN, *Evidence*, 2nd Session, 41st Parliament, 25 November 2013, 1605 (Gerard McDonald).
- 138 TRAN, *Evidence*, 2nd Session, 41st Parliament, 4 December 2013, 1540 (Michael Ferguson).
- 139 Ibid., 1540 and 1620.
- 140 TRAN, *Evidence*, 2nd Session, 41st Parliament, 3 April 2014, 0850 (Keith Creel).
- 141 TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 29 April 2014, 1000 (Rex Beatty); TRAN, <u>Evidence</u>, 2nd Session, 41st Parliament, 8 April 2014, 0935 (Brian Stevens).

APPENDIX A LIST OF WITNESSES

Organizations and Individuals	Date	Meeting
Department of Transport	2013/11/25	3
Luc Bourdon, Director General Rail Safety		
Marie-France Dagenais, Director General Transportation of Dangerous Goods		
Martin J. Eley, Director General Civil Aviation		
Gerard McDonald, Assistant Deputy Minister Safety and Security		
Donald Roussel, Director General Marine Safety and Security		
Department of Transport	2013/11/27	4
Luc Bourdon, Director General Rail Safety		
Marie-France Dagenais, Director General Transportation of Dangerous Goods		
Scott Kennedy, Executive Director Navigation safety and Environmental Programs		
Gerard McDonald, Assistant Deputy Minister Safety and Security		
Office of the Auditor General of Canada	2013/12/04	6
Régent Chouinard, Principal		
Michael Ferguson, Auditor General of Canada		
Maurice Laplante, Assistant Auditor General		
National Steel Car Limited	2014/03/27	18
Jamal Hematian, Vice-President Product Engineering		
Max Vanderby, Director Production Engineering		
United Steelworkers		
Richard Boudreault, Area Coordinator District 5 (Québec)		
Transport Action Canada	2014/04/01	19
David Jeanes, President		
Transportation Safety Board of Canada		
Kathy Fox, Board Member		

Organizations and Individuals	Date	Meeting
Transportation Safety Board of Canada	2014/04/01	19
Kirby Jang, Director Investigations Rail/Pipeline		
Jean L. Laporte, Chief Operating Officer		
Wendy A. Tadros, Chair		
As an individual		
Daniel Gardner, Professor Law Faculty, Université Laval		
Canadian National Railway Company	2014/04/03	20
Michael Farkouh, Vice-President Safety and Sustainability		
Jim Vena, Executive Vice-President and Chief Operating Officer		
Canadian Pacific Railway		
Keith E. Creel, President and Chief Operating Officer		
Keith Shearer, General Manager Safety, Regulatory and Training		
Glen Wilson, Special Assistant to the President and Chief of Operations		
Railway Association of Canada		
Michael Bourque, President and Chief Executive Officer		
As an individual	2014/04/08	21
Mark Fleming, Professor Department of Psychology, Saint Mary's University		
Unifor		
Jerry Dias, National President		
Brian Stevens, Director Rail		
VIA Rail Canada Inc.		
Steve Del Bosco, Interim President and Chief Executive Officer		
Denis Pinsonneault, Chief Customer Experience and Operating Officer		
Jean Tierney, Senior Director Safety and Corporate Security		
Canadian Association of Petroleum Producers	2014/04/10	22
Bob Bleaney, Vice-President External Relations		
David Pryce, Vice-President Operations		

Organizations and Individuals	Date	Meeting
Canadian Association of Petroleum Producers	2014/04/10	22
Greg Stringham, Vice-President Oil Sands and Markets		
Canadian Fuels Association		
Brian Ahearn, Vice-President Western Division		
Peter Boag, President and Chief Executive Officer		
Canadian Propane Association		
Andy Bite, Chief Development Officer SLEEGERS Engineered Products Inc		
Andrea Labelle, General Manager		
Guy Marchand, President and Chief Executive Officer Budget Propane 1998 Inc.		
Canadian Association of Fire Chiefs	2014/04/29	23
Paul Boissonneault, First Vice-President and Fire Chief County of Brant Fire Department		
Chris Powers, Retired Fire Chief		
Freight Management Association of Canada		
Robert Ballantyne, President		
Teamsters Canada		
Rex Beatty, President Teamsters Canada Rail Conference		
Phil Benson, Lobbyist		
OmniTRAX Canada	2014/05/01	24
Mervin Tweed, President		
Saskatchewan Association of Rural Municipalities		
David Marit, President		
As individuals		
Jacques Demers, Mayor Municipalité de Sainte-Catherine-de-Hatley		
Emile J. Therien, Past President Canada Safety Council		
Canadian Association of Chemical Distributors	2014/05/06	25
Jim Bird, Environmental Health and Safety Manager Univar Canada Limited		
Canadian Fertilizer Institute		
Roger Larson, President		

Organizations and Individuals	Date	Meeting
Chemistry Industry Association of Canada	2014/05/06	25
Fiona Cook, Director Business and Economics		
Marty Cove, Manager Logistics, Canexus Corporation		

REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, the Committee requests that the government table a comprehensive response to this Report.

A copy of the relevant *Minutes of Proceedings* (Meetings Nos. 3, 4, 6, 18, 19, 20, 21, 22, 23, 24, 25, 28 and 29) is tabled.

Respectfully submitted,

Larry Miller

Chair

Standing Committee on Transport, Infrastructure and Communities Official Opposition – New Democratic Party of Canada

Review of the Canadian Transportation Safety Regime: Transportation of Dangerous Goods and Safety Management Systems

Supplementary Opinion

On July 6th, 2013 a 74-car runaway freight train carrying a deadly mixture of misclassified crude oil and volatile gases derailed, caught fire and exploded in Lac-Mégantic, Quebec – 47 lives were lost forever, 30 buildings were annihilated, a river and lake contaminated, and a town burned beyond recognition. The tragedy that struck Lac-Mégantic unfolded in a matter of hours. Unfortunately, the conditions that led to this devastation were much longer in the making, and entirely preventable.

Protecting the public is a core responsibility of government. The Official Opposition believes that as legislators we must do everything in our power to ensure that tragedies like Lac-Mégantic never happen again. In the wake of the disaster, Official Opposition MP's in the Transport Committee called for an emergency study to review all recommendations from expert authorities and stakeholders that had not yet been implemented by Transport Canada. Unfortunately the Conservative and Liberal members of the committee did not agree to an emergency rail safety study and our proposal was rejected.

Thankfully, the committee five months later agreed to this study on the transportation of dangerous goods and safety-management systems. We are appreciative of all of the witnesses who took the time to share their perspectives and expertise to improve the safety of our transportation sector. The majority interim report of the Committee provides a reasonable summary of their testimony. We note that only the final report will provide recommendations.

The Official Opposition would like to underscore several key areas where Transport Canada must act to immediately to improve the safety of Canada's railway sector.

Inspections & Audits

Since 2009, crude oil shipments by rail have ballooned from just 500 carloads a year to 160,000 last year alone—an increase of more than 300 fold. The majority interim report recognizes that rail shipments are expected to rise to 510,000 carloads per year by 2016. This new traffic is great business for rail companies, but the industry and Transport Canada have been dangerously slow to react to the new risks that this increased activity brings.

The first job of any government is to ensure the safety of its citizens. Under successive Liberal and Conservative Governments, the necessary audits, spotchecks and rigorous enforcements needed to uphold basic safety standards have taken a back seat. The Transportation Safety Board (TSB) has recommended that key rail routes need to be inspected twice a year and side lines at least once a year. The Minister must confirm when they will implement this recommendation. The 2013 Fall Report of the Auditor General heavily criticized the government for mishandling rail safety by providing a lack of oversight, inadequate inspections and missing quality assurance measures. Completing only one out of four planned rail safety audits is a serious safety risk to the public.

"Transport Canada should identify and develop a strategy to ensure that it has the needed number of inspectors with the necessary skills and competencies required to plan and conduct the oversight of federal railways, including oversight of safety management systems."

2013 Fall Report of the Auditor General of Canada

Violations and Exemptions

After years of delay, and demands from experts and the NDP, the government has finally implemented regulations to allow railway companies to face penalties when violations of safety occur. Such measures have been in place in the United States for years. Transport Canada has documented safety violations by Montreal, Maine and Atlantic, Inc. (MMA), the rail company involved in the Lac-Mégantic tragedy, in 2004, 2009, 2001 and 2012. It is completely unacceptable that penalties were not available as an enforcement tool until now. A lack of penalties contributed to a lack of rail safety culture in Canada. The Minister must reassure Canadians that this new tool will now be used regularly when violations occur.

Similarly, we need the Minister to exercise restraint when granting exemptions to railways who wish to avoid existing regulatory practices. Regulations are in place for a reason – to protect the public –, and when exemptions are granted, the public is put at greater risk. Mr. Richard Boudreault of United Steelworkers stated that safety "is being put at risk by a Minister of Transport who grants exemptions to railways companies like handing out Halloween candy to kids." Currently, there is not sufficient disclosure of who is granted exemptions, for which reasons, and when they plan on conforming to existing regulations. This must end.

Transport Canada granted MMA an exemption to allow only one conductor on board their trains; several witnesses testified that this was completely unacceptable. The government's latest Budget Implementation Bill, C-31, also grants the Minister the

right to create regulations with less advance public consultation. The NDP is concerned that this will make the system less transparent.

Better Planning and Emergency Preparation

As confirmed by the Emergency Response Assistance Plan (ERAP) Working Group and the Auditor General, Transport Canada suffers from a general lack of information. Transport Canada does not know the destinations of the 400,000 railway cars that carry dangerous goods, what they contain or what routes they take. Therefore, it is impossible for the government to know which communities are at risk. We need better public data at Transport Canada to help municipalities and emergency first responders do their job protecting their residents, and we need adequate funding to ensure that the ERAP program can efficiently and effectively review, approve, inspect and monitor all plans.

Transport Canada needs to ensure that vital training exercises with municipal and government agencies, railway personnel, private contractors and other parties take place to prepare for potential incidents involving the transport of dangerous goods. Municipalities need funding assistance where necessary to implement ERAP's. Grade crossings regulations and environmental management plans need to be finalized, while a system to collect and analyse rail safety performance data needs to be implemented.

Safety- Management Systems (SMS)

Twelve years after deregulating rail safety through the Safety Management regime, the federal government cannot ensure the safety of Canada's railways. This has been confirmed by the Auditor General in 2013 and by numerous witnesses during this study.

"We've made it very clear today that the safety management system doesn't exist. There is no safety culture. It is not safe."

Mr. Phil Benson, Lobbyist, Teamsters Canada

"Concerns have also been expressed that SMS allows companies to regulate themselves, in the process removing the government's ability to protect Canadians and their environment and making it possible for the industry to hide critical safety information from the government and the public."

Mr. Emile Therien, Past President, Canada Safety Council, As an Individual

The Minister must publish amendments to strengthen SMS regulations, develop an action plan for the full implementation of SMS, and develop a tool for continuous

oversight of SMS implementation. More work needs to be done to protect whistleblowers and ensure fatigue-management standards are upheld by railway companies.

"I understand there is currently a lack of protection for railway workers who report safety violations to Transport Canada. They are not allowed to bypass their company's SMS. If that company has already accepted the complaint as a tolerable level of risk, nothing can be done, and Transport Canada will never know about it. Whistleblower protection must be incorporated into the Railway Safety Act, and soon."

Mr. Emile Therien, Past President, Canada Safety Council, As an Individual.

As far back as 1994, the TSB had found that the DOT-111 railcar design was flawed, leading to a "high incidence of failure during accidents." After years of incidents, expert recommendations, and pressure from the NDP, the government has finally agreed to phase out the use of DOT-111's for transporting dangerous goods. While encouraged by this announcement, we want to see a detailed plan for how the sector will reach the target of three years, and Transport Canada should ensure that companies are immediately phasing out the use of these dangerous railcars for transporting the most volatile products, like the explosive crude that devastated Lac-Mégantic. It is extremely disappointing that it took a tragedy of this magnitude to finally pressure the government to act.

The TSB also recommended that a risk analysis of routing take place, to determine the safest routing and speed. It appears the government is leaving it to the railroads to do that analysis. We ask why Transport Canada is not involved in that process.

The Standing Committee on Transport, Infrastructure and Communities must make strong recommendations in the final report that reflect the testimony delivered by witnesses in committee. The NDP expects the government to give regular updates to the public on their progress implementing the recommendations from the Auditor General. The Transportation Safety Board is expected to release their final report investigating the tragedy at Lac-Mégantic soon. The Government of Canada must ensure that all of their recommendations are implemented without delay.

Never again must we allow the devastation that occurred in Lac-Mégantic to happen in another community. Canadians have the right to the highest level of protection and assurances that our railroads are safe. When it comes to the safety of our communities and our families, we should expect nothing less.