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Preconditions, Regulatory Failure and Corporate Negligence Behind the Lac-Mégantic Disaster

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Quels enseignements avons-nous tirés de la catastrophe ferroviaire survenue à Lac-Mégantic

Have the Lessons of the Lac-Mégantic Rail Disaster Been Learned?

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Résumé de l'article

La catastrophe ferroviaire de Lac-Mégantic survenue le 6 juillet 2013 n'était pas un événement hautement improbable et impossible à anticiper. Un certain nombre de conditions préalables, le produit d'actions et d'inactions délibérées de la part des autorités réglementaires et des entreprises, ont contribué au risque d'un accident majeur. Ces conditions préalables comprennent : trois décennies de déréglementation des chemins de fer sous les gouvernements conservateurs et libéraux, durant lesquelles les chemins de fer ont acquis une plus grande liberté de se réglementer eux-mêmes; un régulateur dysfonctionnel et affaibli, et un régime de sécurité défectueux; une compagnie négligente avec des violations répétées des normes de sûreté et un penchant pour tourner les coins ronds; un gouvernement hostile à la réglementation et d'austérité, indifférent aux dangers croissants posés par l'augmentation du transport de pétrole par train; et une industrie déterminée à bloquer ou à affaiblir les réglementations de protection touchant potentiellement ses coûts. Ces conditions préalables fournissaient le contexte d'une série de défaillances réglementaires qui se renforçaient mutuellement et qui s'accumulaient, et au fur et à mesure que le transport de pétrole par train augmentait, les chances d'éviter un accident diminuaient, au point où la question est devenue : quand, où et grave à quel point?

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Preconditions, Regulatory Failure and Corporate Negligence Behind the Lac-Mégantic Disaster

BRUCE CAMPBELL*

ABSTRACT

The Lac-Mégantic oil train disaster, July 6, 2013, was not a highly improbable, impossible-to-anticipate event. A number of prior conditions, the product of deliberate regulatory and corporate actions and inactions, contributed to the risk of a major accident. These preconditions include: three decades of railway deregulation under Conservative and Liberal governments under which railways gained increasing freedom to regulate themselves; a weakened, dysfunctional regulator and a flawed safety regime; a negligent company with repeated safety violations and penchant for cutting corners; a regulation-adverse, austerity-minded government indifferent to the growing dangers posed by the increase in the transportation of oil-by-rail; and an industry bent on blocking or weakening potential protective regulations affecting its costs. These preconditions provided the context for a series of mutually reinforcing regulatory failures, which accumulated, and as oil-by-rail grew, so too did the prospects of avoiding an accident diminish, to the point where the question became: when, where and how serious.

KFY-WORDS: :

Lac-Mégantic disaster, government, regulation, railways, oil-by-rail, Transport Canada.

RÉSUMÉ

La catastrophe ferroviaire de Lac-Mégantic survenue le 6 juillet 2013 n'était pas un événement hautement improbable et impossible à anticiper. Un certain nombre de conditions préalables, le produit d'actions et d'inactions délibérées de la part des

^{*} Former Executive Director of Canadian Centre for Policy Alternatives (CCPA) and 2015 recipient of the Law Foundation of Ontario Community Leadership in Justice Fellowship. In the course of this research the author interviewed numerous, mainly former, insiders at Transport Canada, the Privy Council, and the Treasury Board. The author compiled contemporaneous notes, taped or email records of his interviews. In most cases, the author agreed, as per their wishes, to protect their identities. The author is currently writing a book on the Lac-Mégantic disaster.

autorités réglementaires et des entreprises, ont contribué au risque d'un accident majeur. Ces conditions préalables comprennent: trois décennies de déréglementation des chemins de fer sous les gouvernements conservateurs et libéraux, durant lesquelles les chemins de fer ont acquis une plus grande liberté de se réglementer eux-mêmes; un régulateur dysfonctionnel et affaibli, et un régime de sécurité défectueux; une compagnie négligente avec des violations répétées des normes de sûreté et un penchant pour tourner les coins ronds; un gouvernement hostile à la réglementation et d'austérité, indifférent aux dangers croissants posés par l'augmentation du transport de pétrole par train; et une industrie déterminée à bloquer ou à affaiblir les réglementations de protection touchant potentiellement ses coûts. Ces conditions préalables fournissaient le contexte d'une série de défaillances réglementaires qui se renforçaient mutuellement et qui s'accumulaient, et au fur et à mesure que le transport de pétrole par train augmentait, les chances d'éviter un accident diminuaient, au point où la question est devenue: quand, où et grave à quel point?

MOTS-CLÉS

Catastrophe ferroviaire de Lac-Mégantic, gouvernement, réglementation, chemins de fer, transport de pétrole par train, Transports Canada.

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INTRODUCTION

The Lac-Mégantic disaster was not the result of a unique set of circumstances, a black swan event, impossible to anticipate and extremely unlikely to recur. There were a number of preconditions, the product of deliberate government and corporate actions, which heightened the risk of disaster. These preconditions set the stage for

a series of mutually reinforcing regulatory failures, which accumulated over time to the point where it was not a question of if they would result in an accident, but when, and of what magnitude. These preconditions are outlined as follows:

- Three decades of deregulation including in the railway sector, by both Liberal and Conservative governments culminating with the Harper Conservatives: a government that saw regulations as red tape, a silent job killer, and a cost to business, rather than a vital means to protect the public. Successive waves of deregulation produced a deeply flawed railway regulatory regime that gave companies wide scope to regulate themselves, to make decisions that compromised safety when it came in conflict with costs.
- A government focused on its "energy superpower" agenda—which
 encouraged and facilitated the transportation by rail of Bakken shale
 oil and Alberta bitumen—indifferent to potential dangers and
 opposed to measures that might impede its agenda. An austerityminded government, which deprived Transport Canada's rail safety
 and transportation of dangerous goods divisions of the tools and
 resources needed to cope with the oil-by-rail boom; and a Transport
 Canada senior management which bought into the government's
 austerity and economic narrative, and prioritized existing resources
 on economic rather than safety areas.
- A powerful rail industry which believed that it knew best how to regulate itself, that resented interference by front-line regulators, that essentially wrote and managed its own rules; an industry that was able to block, delay, dilute or eliminate regulations which it deemed adversely affected its bottom line, notwithstanding the safety risks posed by the surge in the transportation of oil by rail; an industry, aided and abetted by politicians and senior officials who bought into the government's economic narrative and supported the industry's self-regulation approach.
- A dysfunctional regulator, Transport Canada, plagued by major internal decision-making, communication and information-sharing problems; that did not properly oversee the implementation of its safety management system (SMS) regulatory regime, or properly anticipate looming safety challenges; a demoralized front-line rail safety staff frustrated by their lack of enforcement tools, resources, and the lack of support from senior management.

 A US-owned railway company, Montreal Maine & Atlantic (MMA), with a poor accident record and multiple safety violations; a company focused on cutting costs and cutting corners, with poorly maintained equipment and infrastructure, with a bare-bones inadequately trained staff; a company that failed to correct safety violations despite repeated warnings by inspectors; a company that failed to notify the regulator of major changes in its operations; a company which nevertheless, Transport Canada allowed to continue operating without penalty.

I. THREE DECADES OF DEREGULATION

Deregulation has been a central pillar—along with privatization, monetary and fiscal austerity, free trade agreements, etc.—of a decades-long project that changed the basic rules of capitalist economies both domestically and globally. It transformed the power relationship between the State and corporations, between corporations and workers, and between the State and its citizens. A collaboration of corporations, conservative thinkers and politicians, the neoliberal project to "unleash market forces" gained ascendancy around 1980.

Its prevailing narrative—that governments should do as little as possible to hinder corporations' essential role as job and wealth creators—resulted in the devolution of more and more power to companies to make their own judgments about risk to public safety.

Regulation is not generally at forefront of public consciousness. Most Canadians assume that protecting their health and safety is the primary responsibility of government. They do not trust corporations to regulate themselves given their profit-seeking mandate. Canadians trust their government will take *reasonable* measures to protect them, their workplaces, communities and their environment. Like the young people partying that night at the Musi-Café in Lac-Mégantic, we are all in a way, oblivious to the risks that government imposes on us.

^{1.} A paper commissioned by the External Advisory Committee on Smart Regulation (EACSR) to assess public opinion, concluded that government must be in the driver's seat: "From a citizens' perspective, it is unrealistic to expect industry to self-regulate its behavior so as to ensure a safe environment and protect the country's natural resources. And the same argument was applied to the companies that produce pharmaceuticals and other health products and services." (External Advisory Committee on Smart Regulation Canadian Policy Research Networks, Assessing the Public Interest in the 21st Century: A Framework by Leslie Pal & Judith Maxwell (Ottawa: January 2004)).

When a disaster like Lac-Mégantic happens, people's confidence in the system is shaken.

Only after a major disaster are the consequences of deregulation and the myth of corporate self-regulation exposed.² Only then does the public become aware of the deep flaws in regulatory regimes and lose confidence in government's ability to protect them. There are many examples: the 2008 global financial meltdown, Deepwater Horizon, Fukushima, Bhopal. In Canada the list includes: the Ocean Ranger, Westray Mine, Walkerton, Listeriosis, and most recently the Lac-Mégantic oil train disaster.

Federal and provincial governments were swept along by the deregulation wave—whether enthusiastically or reluctantly, believing there was no alternative. Federally it began in earnest in 1984 with the Mulroney Government, gathering steam with the Chrétien and Martin governments and pursued most aggressively by the Harper Government. Beginning with the 1985 Neilson Commission there have been numerous commissions, committees, action plans, directives and policies, the most recent being Harper Government's 2012 Cabinet Directive on Regulatory Management (CDRM).

The previous Liberal Government masked its deregulation initiative as "smart regulation" to allay concerns it might be compromising public health and safety. The Harper Government—much less concerned with such nuance—portrayed its deregulation initiative as "job-killing, wealth-destroying red tape." However, both Liberal and Conservative governments squeezed regulatory and related research resources. Austerity policies from the mid-1990s reduced fiscal capacity, which led to further cuts and increased pressure to offload regulatory functions to companies. Although deregulation has proceeded incrementally, its cumulative effect has been profound.

The Harper Government, the most aggressive proponent of deregulation, launched the Red Tape Reduction Commission [hereafter Commission], in 2011. The Commission's conclusions were incorporated into the government's regulatory policy: the CDRM, which took effect in

^{2.} For this and other insights into patterns common to major disasters, I am indebted to the work of Susan Dodd, *The Ocean Ranger: Remaking the Promise of Oil* (Ottawa, Black Point (NS) and Winnipeg (Man): Fernwood, 2012).

the spring of 2012.³ The policy was embedded in legislation with the 2015 *Red Tape Reduction Act* and is still in effect.⁴

Building on previous Liberal Government regulatory policy, the Government Directive on Regulating (GDR) and its own previous efforts, the CDRM extended deregulation to a new level. It is framed by seven basic principles or commitments, five more than its predecessors. Only one specifies the need to protect health, safety and the environment. The rest deals with efficiency, cost-benefit, "sound science," competitiveness, elimination of red tape, and transparency. Although regulatory impact analysis provisions state a variety of factors should be taken into consideration including safety, environment and social well-being, according to one source, under the Harper Government, anticipated short-term costs to business (red tape) were in practice the sole test for determining whether a proposed regulation was accepted.⁵

Under the CDRM, the risk management approach, while paying lip service to the precautionary principle—which says in the face of scientific uncertainty regulators should err on the side of caution giving primacy to public health, safety, and the environment—increasingly sidelines it by, for example, instructing regulatory agencies to impose the least cost to businesses necessary to achieve the intended policy objectives. Business-friendly guidelines and voluntary codes are preferred options to regulation.

According to Marc Lee, "[t]he risk management approach defers judgment unless risks are sufficiently large, based on a rigorous, scientific demonstration of harm. This places the burden of proof in the opposite place—on the regulator." The CDRM references the Framework for the Application of Precaution in Science-Based Decision Making About Risk, which, writes Lee, "narrowly redefines precaution in terms of risk management."

^{3.} Cabinet Directive on Regulatory Management (CDRM), online: <www.tbs-sct.gc.ca/hgw-cgf/priorities-priorites/rtrap-parfa/guides/cdrm-dcgr-eng.asp> [Cabinet Directive].

^{4.} Adriane Yong, "Bill C-21, An Act to Control the Administrative Burden that Regulations Impose on Businesses", Legislative Summary on Pub No 41-2-C21-E (Ottawa: Library of Parliament, 2014).

^{5.} Personal communication.

^{6.} Marc Lee, Canada's Regulatory Obstacle Course (Ottawa: Canadian Centre for Policy Alternatives, 2010) at 6.

^{7.} Ibid.

This has strengthened the ability of companies to use "sound science" or "evidence-based" arguments to delay or block the introduction of new regulations by increasingly under-resourced agencies.

The CDRM also introduces a lifecycle approach to regulation: an ongoing systemic review of regulations—a step in the direction of sunset clauses whereby a regulation automatically expires and has to be re-justified. Centralized evaluation of regulatory proposals adds new layers of review and opportunities to delay, dilute or block new regulations.

Another regulatory constraint is the requirement that proposed regulations be screened to ensure their consistency with international trade and investment agreements, and would not be sued by corporations under investor-State dispute settlement systems (ISDS).

However, the centrepiece of the Harper Government's regulatory policy was the *One-for-One Rule*, which forced regulatory bodies to offset each proposed new or amended regulation by removing at least one existing regulation. The *One-for-One Rule* was designed to ratchet down the overall number of regulations. *One-for-One Rule* was the key implementing mechanism for the government's little known "regulatory budget." ⁹

The regulatory budget defined and quantified regulations solely as a cost to business—a "hidden tax." Like tax cuts, business would profit from fewer regulations. A metric was devised to measure progress and an external private sector watchdog committee would oversee the process to ensure that bureaucrats did not stonewall the government's agenda. According to former PMO advisor Shawn Speer, Stephen Harper personally championed this deregulation initiative during its conception and development. The Prime Minister's ongoing personal involvement sent a powerful message to Cabinet ministers and the federal bureaucracy: resistance would not be tolerated.

^{8.} Cabinet Directive, *supra* note 3, c 5 at 4, online: <members.wto.org/crnattachments/2014/tbt/CAN/14_2580_00_e.pdf>; Bruce Doern, Michael J Prince & Richard J Schultz, *Rules and Unruliness: Canadian Regulatory Democracy, Governance, Capitalism, and Welfarism* (Montréal (Que), Kingston (Ont): University Press, 2014) at 111.

^{9.} One-for-One Rule, online: <www.canada.ca/en/treasury-board-secretariat/services/federal-regulatory-management/one-for-one-rule.html> and <www.canada.ca/en/treasury-board-secretariat/services/federal-regulatory-management/guidelines-tools/controlling-administrative-burden-guide-one-for-one-rule.html>.

^{10.} Sean Speer, "Regulatory Budgeting: Lessons from Canada" (March 2016) 54 R Street Policy Study (Wash, DC) 1.

Not part of the regulatory budget calculus was any measure of the public health safety and environmental benefit provided by a proposed regulation, nor the potential risk to public safety of eliminating an existing regulation.¹¹ This could give rise to a series of potential Hobson's choices for regulators and also hamper their ability to address new threats such as the surge in oil-by-rail.¹² Moreover, regulatory budgets created a new layer of hoops, compounding the challenges for an already overstretched regulatory agency.

One source, hired for a Transport Canada research project to "streamline" regulations, came to realize that the real goal was simply to eliminate regulations. He was appalled by the extent to which eliminating these regulations could compromise safety—Transport Canada's primary mandate.

While the direct effect of the Harper Government's *One-for-One Rule* is not known, one thing is clear. It helped to hamstring the regulatory process, stonewalling measures which might possibly have prevented the Lac-Mégantic disaster: regulations limiting the length of oil trains, mandating crude oil be transported in upgraded tank cars, classification of crude oil as a dangerous good, strengthened train inspection and securement rules, strengthened enforcement tools, improved fatigue management rules, and other safety protections.

The Harper Government's penchant for control and suppression of information and muzzling scientists, its austerity fiscal agenda and business-friendly economic agenda, together with its hostility to regulation, should be seen within the wider frame of its subversion of the independence of government agencies, including regulatory and advisory bodies.

It created a climate of fear within the public service. The message to senior public servants, including heads of agencies, was that if you step out of line, if you challenge or criticize the government or are offside with its agenda, you will be fired and publicly pilloried, your

^{11.} I am not aware of specific cost-benefit calculations for Canadian regulations. However in the US, the Office of Management and Budget (OMB) estimates that regulatory benefits exceed regulatory costs by 7 to 1 for significant regulations. The Environmental Protection Agency (EPA) estimates that the regulatory benefit of the Clean Air Act exceeds its costs by a 25-to-1 ratio. Cited in Regulatory 'Pay Go' Rationing the Public Interest (Washington (DC): Centre for Progressive Reform, Alert # 1214, October 2012) at 2.

^{12.} A Hobson's choice involves having to accept one of two or more equally objectionable alternatives.

appointment will not be renewed. It sent a message that the role of regulatory and advisory bodies is to support without question the government's agenda.

The 2007 firing of Linda Keen, the President of the Canadian Nuclear Safety Commission who defied a government order she determined would subordinate public safety to government priorities and industry interests, "put a chill through the federal system," according to former Auditor General Sheila Fraser in an interview with journalist Michael Harris.¹³

The Conservative Government severed the checks and balances between itself and the public service, in the words of a highly placed source. "The co-optation of the public service broke the traditional independence of the public service. Its new role is to execute the will of the government without question to carry out government business like good loyal soldiers," the source said. "At the apex of the public service, the Privy Council Office (PCO) no longer provides a buffer between the political level and the bureaucratic level. It has been thoroughly politicized." Decisions were made based on ideological preconceptions, "gut feelings" and industry demands. Arms-length policy advice or evidence-based analysis was disregarded. As a former Public Works official wrote, "[n]o longer do public servants speak knowledge to power: they are expected instead to pander to known already-made decisions and biases." 15

II. RAILWAY DEREGULATION

Railways were one of the first sectors to succumb to the Mulroney Government's deregulation axe. Amendments to the *Railway Safety Act* in 1985 started the ball rolling, devolving more responsibility for management of safety to the companies themselves. Transport Canada's proactive power to initiate regulations regarding what companies should do was diminished and increasingly limited to what company should not do.¹⁶

^{13.} Michael Harris, *Party of One: Stephen Harper and Canada's Radical Makeover* (Toronto: Penguin, 2014) at 421.

^{14.} Personal communication.

^{15.} John Read, "What's in a Word?" Canadian Government Executive (24 January 2014), online: <www.canadiangovernmentexecutive.ca/whats-in-a-word/>.

^{16.} Personal communication.

From 1987 to 1989, the Canadian Transport Commission (CTC) was dismantled and its functions eventually ended up in three separate agencies: the Transportation Safety Board (TSB), Transport Canada and the Canadian Transportation Agency (CTA) regulatory functions, formerly the responsibility of the CTC, were brought inside Transport Canada giving it the dual mandate of both regulating and promoting transportation industry. The TSB was responsible for investigating accidents and advising the government on safety. The CTA's function was limited to, among other things, issuing railway operating certificates based on insurance criteria, approving new railway lines, and resolving disputes from the public and other levels of government.

In 1995, the Chrétien Government authorized the privatization of Canadian National Railway (CN) and shortly thereafter permitted Canada's two major carriers, CN and Canadian Pacific (CP), to sell off unprofitable sections of track and concentrate on their more lucrative long-haul operations. This sparked another wave of restructuring, amalgamations and layoffs. Both CN and CP expanded their networks in the United States.

At the same time, the Liberal Government embarked on a major fiscal austerity drive, cutting program spending including on regulatory functions, downsizing staff and related research that supported their work.¹⁷

The restructuring gave rise to a proliferation of small "short line" railways: companies operating close to the financial edge often cut corners, increasing risks to safety. But they also enabled communities and local industry to retain access to rail lines that had been abandoned by the majors. CP's line that went from Montréal through Lac-Mégantic to Maine was eventually bought by the US holding company, Rail World Inc which created MMA in 2003. It also gave CN and CP the ability to discontinue routes that they deemed no longer profitable. For example, they ripped up the Ottawa Valley lines in favour of those that ran through large population centres.

^{17.} Doern, Prince & Schultz, *supra* note 8 at 61. Beginning with the Mulroney Government's 1985 Nielsen task force and the shift from direct enforcement toward "smart regulation," successive governments understood that this approach would result in fewer public servants and less cost to the treasury. The Liberal 1995 budget, for example, projected a 51% decrease in spending over two years at Transport Canada. See also Donald J Savoie, *What Is Government Good At? A Canadian Answer* (Montréal (Que), Kingston (Ont): McGill-Queen's University Press, 2015) at 216–17.

III. A FLAWED REGULATORY REGIME

Derived from the statutory authority of the *Railway Safety Act* and the *Transportation of Dangerous Goods Act*, Transport Canada, with Cabinet approval, establishes the regulations and standards, approves and oversees the Canadian Rail Operating Rules (CROR) that the industry writes, as well as each company's specific instructions through which it interprets the operating rules.¹⁸

The industry-drafted CROR have been widely criticized as too vague and inadequately enforced. Companies are given too much latitude and granted too many exemptions according to railway unions. ¹⁹ The process for granting these exemptions is opaque. Unifor's rail representative Brian Stevens testified before the Commons Transport Committee: "We have a regulatory regime and then there's a back door to walk themselves out of the rules." The union representing Transport Canada's rail inspectors—the Union of Canadian Transportation Employees (UCTE) in it is brief to the Transport Committee stated: "[...] it is often difficult for inspectors to understand why a company receives an exemption in specific circumstances."²⁰

The SMS regime, which came into effect in 2001, was a pivotal step in the deregulation of the rail safety regime.²¹ Within the statutory framework, Transport Canada's regulations and standards, and industry-developed operating roles, SMS are formal plans developed by the companies and within which they proactively manage their own safety operations. Plans are approved and regularly audited by Transport Canada to ensure that they are being implemented in accordance with SMS regulatory requirements.

Combined with conventional oversight, the SMS regime was, according to conventional wisdom, a more effective way to reduce accidents by requiring companies to demonstrate that they were taking the lead in managing safety risks and injecting a safety culture

^{18.} Railway Safety Act, RSC 1985, c 32 (4th Supp).

^{19.} House of Commons, Standing Committee on Transport, Infrastructure and Communities, *Testimony* (27 March 2014).

^{20.} The Union of Canadian Transportation Employees (UCTE), Canada's Broken Transportation Oversight System. A Concerned Inspectorate Speaks: Recommendations for Reforms to Canada's Transportation Safety Regime, 2014, at 14.

^{21.} Railway Safety Management System Regulations, SOR/2001-37, online: <laws-lois.justice. gc.ca/eng/regulations/SOR-2001-37/>.

within their organizations. The SMS regime was seen as a win-win: good for business and less costly for government at a time of fiscal retrenchment.

However, in granting companies wide discretion to juggle costs and safety risks, SMS opened the door to conflicts of interest. Referred to as co-regulation between government and industry, SMS was a major surrender of Transport Canada's direct regulatory authority. Transport Canada insisted that SMS would be an additional layer or supplement to conventional regulation. However additional resources were not provided. On the contrary, resources continued to be squeezed and on-site unannounced inspections dwindled, replaced by paper inspections.

The gap between the promise of this new regulatory regime and reality of its implementation became evident early on as major flaws came to light. Then Chief of Marine Transportation Security and Regulatory Affairs, Ian Bron, submitted a report to the deputy Minister in December 2006 expressing concern that Transport Canada was "implementing a system of regulation that was effectively a rubber stamp checklist. Paperwork was being examined, but no inspectors were on the ground doing proper tests of the system to make sure they worked."²³

A report the following year by the Canada Safety Council called it an accident waiting to happen: "[It] allows rail companies to regulate themselves, removing the federal government's ability to protect Canadians and their environment, and allowing the industry to hide critical safety information from the public." It urged the government to restore Transport Canada's regulatory oversight role.²⁴

The 2007 Railway Safety Act Review Panel found that Transport Canada was not assessing the implementation and effectiveness of companies' SMS. It also concluded: "Transport Canada [...] was not provided with sufficient human and financial resources, and the appropriate skill sets

^{22.} Transport Canada, *Railway Safety Management Systems Guide*, 2013 Fall Report of the Auditor General of Canada (Ottawa: Office of the Auditor General of Canada, 2010) at Chapter 7, Exhibit 7.4: Oversight of Rail Safety—Transport Canada, online: <www.oag-bvg.qc.ca/internet/English/parl_oag_201311_07_e_38801.html> [Auditor General].

^{23.} Interview with The Hill Times (23 June 2014).

^{24.} Canada Safety Council, online: <www.tc.gc.ca/media/documents/rsa-lsf/CSC.pdf>.

at the outset of the SMS program."²⁵ It emphasized the need to train additional inspectors to also be auditors.

In a report the same year entitled *Moving Forward—Changing the Safety and Security Culture*, Transport Canada committed to "maintaining the capability to apply its traditional compliance inspection and audit activity while augmenting its capability to perform system audits and assessments." ²⁶ Transport Canada created an SMS Audit, Enforcement and Risk Evaluation Group in 2011. But at the time of the Lac-Mégantic accident, enforcement programs for SMS regulations had not been developed; nor had audit follow-up procedures been instituted. ²⁷

Lawyer and former locomotive engineer, Wayne Benedict, urged the government to restore rail safety regulatory power to Transport Canada in a University of Denver, *Transportation Law Journal* article.²⁸ Allowing companies to manage their own safety, he wrote:

[...] is not adequately protecting the interests of the Canadian public, the Canadian environment, or the Canadian railway workers. To private railway companies, whose raison d'être is to make maximum profits; expensive investments in safety [...] will always be subordinate to other competitive factors when subjected to cost-benefit analysis.²⁹

Benedict ended his article with a warning that turned out to be prescient: "What the future holds for Canada's railway safety regulatory system is difficult to discern. However, if the trend [...] continues unchecked it is only a matter of time before Canadians are confronted with another Mississauga, Hinton, Edson, *or worse.*" ³⁰

When I interviewed Benedict shortly after the Lac-Mégantic disaster, he insisted that there had been no significant changes since he wrote

^{25.} Ottawa, Transport Canada, *Stronger Ties: A Shared Commitment To Railway Safety, Railway Safety Act* Review Secretariat (Ottawa: Transport Canada, 2007) at 185, online: <tc.gc.ca/media/documents/railsafety/TRANSPORT_Stronger_Ties_Report_FINAL_e.pdf>.

^{26.} Moving Forward—Changing the Safety and Security Culture, at 10, online: <publications. gc.ca/site/eng/9.689635/publication.html>.

^{27.} Canada, Railway Investigation Report R13D0054 (Gatineau: Transportation Safety Board of Canada, 2013) at 73 online: <www.tsb.gc.ca/eng/rapports-reports/rail/2013/r13d0054/r13 d0054.asp> [TSB].

^{28.} E Wayne Benedict, "Canada's Railway Safety Regulatory Regime: Past, Present and Future" (2007) 34:2 Transp LJ 151.

^{29.} Ibid at 164.

^{30.} Ibid at 164-65 [italics added].

the article; and his argument, that the fundamental flaw in the regulatory system—vesting profit-seeking corporations with the power over the public interest—still holds.³¹

Several TSB investigations also found deficiencies in the implementation of SMS such as not conducting risk assessment for significant changes in operations, or not effectively identifying risks associated with operational changes, or identifying unsafe practices.³² The TSB added SMS to its 2010 *Watchlist* on *Key safety issues in Canada's transportation system* because, in its words, "railways (and other modes) are not always identifying and mitigating risks through their SMS and Transport Canada audits are not always effective." The TSB removed SMS from its *Watchlist* in 2012, but put it back on after Lac-Mégantic.³³

A December 2011 report of the Environmental Commissioner in the Office of the Auditor General castigated Transport Canada for its inability to adequately enforce its rules to protect the public against the threat from major spills of dangerous goods.³⁴ The report found that its Transportation of Dangerous Goods (TDG) Directorate did not know precisely what specific companies handled dangerous goods, nor did it prioritize inspections based on an overall risk assessment strategy. Its sample of the TDG directorate's inspections revealed that where inspections found non-compliance with federal regulations, almost three quarters showed incomplete, or no evidence of corrective action having been taken. It noted that many of the deficient oversight practices identified by the 2006 internal audit had yet to be corrected.³⁵

Transport Canada promised to implement the Environment Commissioner's recommendations, but by April 2013 it still had not fully complied with key recommendations, including on roles and responsibilities with regard to inspections, and ensuring compliance from industry.³⁶

^{31.} Interview with Wayne Benedict.

^{32.} Canada, Railway Investigation Reports: R03V0083 (2003), R05V0141 (2005), R06V0136 (2006), R06V0183 (2006), R07V0213 (2007) and R09T0057 (2009) (Transportation Safety Board of Canada, 2003–2009).

^{33.} Transportation Safety Board, *Watchlist*, online: <www.tsb.gc.ca/eng/surveillance-watchlist/>.

^{34.} Report of the Commissioner of the Environment and Sustainable Development (December 2011), online: <www.oag-bvg.gc.ca/internet/English/parl_cesd_201112_e_36027. html>.

^{35.} *Ibid* at 1.15–1.34.

^{36.} Mike De Souza, "Watchdogs Contradict Transport Canada Safety Oversight Claims Following Lac-Mégantic Disaster", *Postmedia News* (12 July 2013).

In 2012, the Auditor General initiated another investigation, this time of Transport Canada's SMS. It completed its fieldwork shortly before Lac-Mégantic and released its report in November 2013.³⁷ The Auditor General report did not evaluate the effectiveness of SMS as an approach to safety, but rather only whether it was being properly implemented. Nor did it evaluate specific companies SMS plans, which were protected under commercial confidentiality and therefore inaccessible to the Auditor General's investigation.

The report found major problems with the implementation of SMS. Transport Canada conducted just 26% of its planned SMS audits over a 3-year period to March 2012, that their scope was too limited, and only 10% of its rail safety inspectors were qualified to carry out SMS audits.³⁸ Transport Canada's Assistant Deputy Minister for Safety and Security, Gerard McDonald, had testified before the Commons Transport Committee the previous month that the Department did fewer audits than planned because they had adjusted their original targets; but the Auditor General found no evidence to support this change of plan.³⁹

According to the report, Transport Canada did not take any enforcement action to maintain effective SMS even when potential safety deficiencies were identified. In the large majority of cases where SMS audits were conducted, there was no follow-up by inspectors to ensure the companies' corrective action plans in response to audits had been implemented. Transport Canada, it also found, did not do a proper analysis to determine its overall needs for implementing the SMS regime: how many inspectors, how many auditors, how much training and how many resources it needed to do the job. Nor were Transport Canada's own risk assessments taking into account potential future risks that the industry would face such as the increase in the transportation of dangerous goods, in order to determine the location of the greatest risks and ensuring that resources were sufficient and assigned accordingly. The report concluded: "Transport Canada does not have

^{37.} Auditor General, supra note 22.

^{38.} Ibid at sections 7.45, 69 and 73.

^{39.} House of Commons, Standing Committee on Transport, Infrastructure and Communities, *Testimony of Gerard McDonald* (27 November 2013).

^{40.} Auditor General, supra note 22 at section 7.57.

^{41.} Ibid at sections 7.35-7.39.

the assurance it needs that federal railways have implemented adequate and effective SMS."⁴²

Recall that this was 12 years and several external evaluations since the SMS regime was first introduced. Whatever proclaimed benefits of the SMS system were nullified by Transport Canada's abysmal failure in implementing it. As York University Professor, Mark Winfield wrote: "The Lac-Mégantic disaster highlighted the extent to which SMS became a distraction from TC's essential safety oversight role and also failing to impose on the companies a more active self-critical safety behaviour." 43

At the time of the disaster, Transport Canada's enforcement tools were weak as were penalties for non-compliance. Under section 31 of the *Railway Safety Act* rail inspectors can issue a letter of non-compliance, a letter of concern, a notice and order to respond to a threat to safe operations. However, unless the rail safety inspector believes there is an immediate threat, whatever the safety violation or deficiency in its SMS, it would not trigger an enforcement action, but rather would be flagged as an opportunity for the company to improve.

Moreover, inspectors were encouraged not to issue section 31 orders. In fact according to one former insider, they were judged by their superiors by the number of orders they did not issue rather than the number they did issue.⁴⁴ Thus, they had on paper a tool, which they were encouraged not to use given companies' capacity and inclination to push back, either through formal or informal means—through appeal or minimal compliance.⁴⁵

The defective Transport Canada's oversight regime was painfully obvious in the case of MMA; a litany of accidents and safety violations, lack of tools to enforce sanctions for non-compliance, and an SMS which sat in a drawer for seven years before Transport Canada decided

^{42.} Ibid at section 7.47.

^{43.} Mark Winfield, "The Lac-Mégantic Disaster and Transport Canada's Safety Management System (SMS) Model: Implications for Reflexive Regulatory Regimes" (2016) 28:3 J Envtl L & Prac 299, online: <marksw.blog.yorku.ca/2015/04/29/smart-regulation-and-public-safety-transport-canadas-safety-management-system-sms-model-and-the-lac-megantic-disaster/>.

^{44.} Personal communication corroborated by several sources.

^{45.} The *Rail Safety Act* was amended in May 2013 to enable railway inspectors to impose administrative monetary penalties. But these were not implemented until 2015, two years after Lac-Mégantic.

to look at it.⁴⁶ While inspectors lacked the capacity to impose sanctions, Transport Minister Lebel had the power under section 32 of the *Railway Safety Act* to issue a ministerial order, although such orders are subject to complicated appeal procedures and an order is stayed if the company appeals it.⁴⁷ He could also issue a court order to enforce violations, and prosecution at the discretion of the attorney general in cases of serious, willful, uncorrected and/or continued non-compliance by a specific company, which certainly was the case with MMA. Only eight successful prosecutions were achieved between 1997 and 2010.⁴⁸ As far as is known, the Minister did not order, or even threaten to order, any measures that would have jeopardized MMA's continued operation.

IV. REGULATORY CAPTURE

Regulatory capture refers to the extraordinary power of corporations to drive the regulatory process. Capture exists where regulation is routinely directed to the benefit of the private interest of the regulated industry at the expense of public interest; where industry is routinely able to shape the regulations governing its operations, block or delay new regulations, remove or dilute existing regulations deemed to adversely affect costs.

Capture is a complex phenomenon with a number of dimensions and a continuum reflecting the relative power balance between regulator and industry. In some cases a regulatory agency identifies with the interests and preferred policy outcomes of the regulated industry more than its obligation to regulate in the public interest, conflating the private interest and public interest, and seeing itself more as partner than independent body. Regulators are often recruited from industry and then return to industry after a time in government—the revolving door phenomenon. Managers seeking employment with industry down the road will tend to pull their punches to remain on good terms. Moreover, a regulator's competence is often best judged by the regulated industry, creating the danger of the industry tarnishing the reputation of an "uncooperative" regulator.⁴⁹

^{46.} TSB, supra note 27 at 72-76.

^{47.} Ibid at 82.

^{48.} Winfield, supra note 43.

^{49.} There is a large literature on regulatory capture, from the work of Chicago school economist George Stigler concerned with monopolies stifling competition, to more recent work focused on public interest issues: health, safety and the environment. Elizabeth Warren,

According to a former Transport Canada insider, most senior operational staff at Transport Canada come from the railway industry and usually tend to identify with the interests of the industry. They do not leave their railway hats behind. Senior officials tend to side with companies' expertise economic priorities, downplaying safety considerations. This dynamic is compounded by awareness of their political masters' bias toward the industry. An internal Transport Canada audit, completed in June 2013, stated the Department lacks a well-developed system for preventing conflict of interest. ⁵⁰ The Auditor General's 2013 report expressed a similar concern that there was no process in place to ensure independence. ⁵¹

Senior public servants and ex-politicians move easily to the lucrative positions in the industry where their knowledge of government workings makes them valuable assets as corporate board members and lobbyists. For example, former Minister of Transport John Baird (2008–2010) was appointed to the Board of Canadian Pacific after leaving politics in 2015, a position that came with a stipend of \$235,000 per year.

But this is only part of the story. The regulatory process is largely rigged in favour of the industry. The resources available to industry lobbyists far outweigh those available to public interest groups, municipalities, etc. Industry dominates interventions in response to regulatory proposals: comments, meetings with regulators, public consultations, appeals and other forms of interaction. Industry's control of information and resources enable it to commission studies by highly paid analysts producing self-serving data presented as sound science.⁵²

[&]quot;Corporate Capture of the Rulemaking Process" (14 June 2016) The Regulatory Review 1; Jason MacLean, "Striking at the Root Problem of Canadian Environmental Law: Identifying and Escaping Regulatory Capture" (2016) 29 J Envtl L & Prac 111; Daniel Carpenter & David Moss, eds, Preventing Regulatory Capture: Special Interest Influence and How to Limit It (New York: Cambridge University Press, 2014); Amital Etzioni, "The Capture Theory of Regulations—Revisited" (2009) 46:4 Soc 319.

^{50.} Bill Curry, "Audit Takes Transport Canada to Task on Wasteful Spending, Contracts", *The Globe and Mail* (7 January 2014).

^{51.} Transport Canada is currently developing conflict-of-interest rules that will "require conflict-of-interest statements from all [our] employees, both at the executive level and at the inspector level, who are in areas of safety sensitivity and who potentially might be more vulnerable or more in question if there were issues." Testimony of Laureen Kinney, Assistant Deputy Minister for Safety and Security at Transport Canada, House of Commons, Standing Committee on Transport, Infrastructure and Communities (12 June 2014).

^{52.} A study by the Polaris Institute found that between July 2008 and November 2012, lob-byists acting on behalf of individual corporations or industry associations held over 2,000 oral communications (meetings, etc.) with so-called designated public officeholders which include

And even when a proposed regulation is successful, they are able to appeal and delay its implementation.⁵³ Under-resourced agencies lack their own independent body of knowledge and expertise and thus are dependent for much of their information on the companies they regulate, limiting the options that an agency can consider and their ability to evaluate industry arguments. Public interest group interventions are by contrast sparse and intermittent; and the public is rarely involved in consultations.

The petroleum industry exerted enormous power in shaping the Harper Government's policy priorities. It did so through close personal ties between the industry and politicians; through allies in departments, agencies, boards and commissions; and through the supportive research of industry-friendly think tanks. It also had a formidable lobbying capacity.

In the years leading up to the Lac-Mégantic disaster, the oil industry's main priority was—especially in light of pipeline delays—to ensure that the transportation of oil by rail was not disrupted, nor its cost increased by more and stricter regulations. Oil companies resisted longstanding warnings from the US and Canadian transportation safety boards that the standard DOT 111's tank cars were unsafe for transporting dangerous goods and should be replaced. They denied that Bakken shale oil and diluted bitumen were any more volatile than conventional crude, and resisted regulations mandating that these components be removed before being transported.⁵⁴

The rail industry like big oil companies was concerned about the possibility that new regulatory measures might eat into its profits from

politicians, senior departmental and agency officials. The lead lobby, the Canadian Association of Petroleum Producers (CAPP) held 536 such communications with policymakers. By contrast, the largest environmental umbrella group, the Climate Action Network had just six such communications, during this period. See Daniel Cayley-Daoust & Richard Girard, Big Oil's Oily Grasp: The Making of Canada as a Petro State and How Oil Money Is Corrupting Canadian Politics (Ottawa: Polaris Institute, December 2012).

^{53.} For example, after many years of attempting to give inspectors more power to enforce regulations and resistance from the companies, administrative monetary penalties (AMP) finally became law in amendments to the *Railway Safety Act* in May 2013. However, due to further resistance the regulations implementing these provisions did not come in until April 1, 2015. It is still unclear how effective they will be given the ability of companies to appeal.

^{54.} See for example Matthew Philips, "Bakken Crude Is Volatile, but Train Operators Have Made Mistakes Too", *Bloomberg Business Week* (16 May 2014), online: <www.businessweek.com/articles/2014-05-16/bakken-crude-is-volatile-but-train-operators-have-made-mistakes-too>.

this lucrative new revenue stream. Railway executives downplayed safety concerns with a standard response citing the Association of American Railroads (AAR) statistic that 99,997% of trains reach their destinations without an accident. These statistics did not account for a Lac-Mégantic—a rare event with catastrophic consequences. Faulty risk management models, which excluded the possibility of such events, lulled the industry and regulators into a sense of complacency about the risks even as skyrocketing oil shipments increased the likelihood of such an accident.

CN CEO Claude Mongeau told a Wall Street analysts' briefing: "If you have one rail car that gets punctured, it is 600 barrels that might spill." "[This is] nothing like what could happen if you have a spill with a pipeline." Clearly, the possibility of a Lac-Mégantic magnitude disaster, with 63 tank cars derailing and spilling 6 million litres of volatile oil, was not on his radar.⁵⁶

The railway companies, either individually or through their umbrella organization, the Railway Association of Canada (RAC), descended upon Ottawa. Companies are obliged to reveal to the Commissioner of Lobbying the nature and extent of their lobbying activities. In the months leading up to the accident they repeatedly petitioned politicians and bureaucrats, arguing that strengthened regulations for the transportation of oil were unnecessary and at times argued for existing regulations to be removed.⁵⁷

The lobby records show that the RAC added a new subject to its lobbying activities for the period January 1–July 8, 2013: "To inform about the movement of dangerous goods, including voluntary and regulatory requirements, volumes, customers and safety measures to

^{55.} Interestingly this figure, calculated by the AAR, does not include the magnitude of spills, environmental damage, death or injury. And because the Lac-Mégantic accident occurred in Canada, it is not included in the AAR figure.

^{56.} Marianne Lavelle, "Oil Train Tragedy in Canada Spotlights Rising Crude Transport by Rail", *National Geographic* (13 July 2013).

^{57.} During the period from January 1, 2009 to August 31, 2013, submissions to the Commissioner of Lobbying indicate that CN lobbyists had 521 "communications" with government or parliamentary officials (referred to as "designated public office holders") 210 of which were with Transport Canada. CP registered 121 communications, of which 41 were with Transport Canada. And the RAC made 68 communications with public office holders, of which 32 were with Transport Canada. See Lobby Register, online: <ocl-cal.gc.ca/app/secure/orl/lrrs/do/vwRg?cno=147 98®ld=761815#regStart>.

assure them that current regulations for dangerous goods transportation are sufficient." In disclosures two days after the tragedy, the lobby group removed its claim that current regulations were sufficient.⁵⁸

CP lobbyists met with advisors to the Transport Minister in April 2013—on among other subjects: "[...] Transport Canada's review of freight rail service in Canada [...] advocating for no additional regulation." CN's manager of safety and regulatory affairs, appearing before the Senate Energy, Environment and Natural Resources Committee just weeks before the accident, when asked if Transport Canada should hire more inspectors, said: "There is no further requirement for Transport Canada to do any more than what they currently do." 59

Perhaps the single most important example of the railway industry's power was the industry's ability to write the rules, which played a central role in the Lac-Mégantic disaster. In 2008, Transport Canada approved the RAC redrafting of CROR over objections from the unions and from within the Department itself. It included a loophole called *General Rule M*, which enabled railway companies to operate their trains with a single-person crew without needing an exemption accompanied by rigorous conditions. The rules had previously required a minimum of two-person crews—the locomotive engineer and conductor. Transport Canada, aware that the companies were interested in shifting to Single-Person Train Operation (SPTO), approved this major operational change without requiring the RAC to do a risk assessment, and without doing its own risk assessment, to ensure an equivalent level of safety as with existing two-person crews.

The railway lobby then advocated on behalf of MMA, the most aggressive proponent of single-person crews; Transport Canada head-quarters allowed MMA to take advantage of this regulatory change and begin operating its oil trains with a single operator (SPTO), again

^{58.} In its more recent submission it changed the wording of its activity removing the line assuring that current regulations regarding the transport of dangerous goods are sufficient. It reads as follows: "To inform about the movement of dangerous goods, including voluntary and regulatory requirements, volumes, customers, rail operators (Class 1, local and regional railways), safety measures and safety training to ensure regulations for dangerous goods transportation is adequate and conducive to safe railway operations.", online: <lobbycanada.gc.ca/app/secure/ocl/lrs/do/vwRg;jsessionid=0001pd-1rCzbReAzaoXNZtAcYkg:J7IRK?cno=318505®ld=782508>.

^{59.} Senate of Canada, Standing Committee on Energy, the Environment and Natural Resources, *Moving Energy Safely* (August 2013) at 38, *Testimony* (23 May 2013).

^{60.} TSB, supra note 27 at 65.

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over the objections of unions and Transport Canada's Quebec regional office, and in spite of the red flags raised by its own commissioned National Research Council (NRC) study.⁶¹

V. INDIFFERENT GOVERNMENT, DYSFUNCTIONAL REGULATOR

At the August 2014 press conference release of the TSB's investigation report on the Lac-Mégantic disaster, outgoing Board Chair, Wendy Tadros, unleashed a blistering attack on Transport Canada:

[MMA was] a company where unsafe conditions and unsafe practices were allowed to continue. Which begs a question: Who, then, was in a position to check on this company [...] to make sure safety standards were being met? Who was the guardian of public safety? That's the role of government; to provide checks and balances. Oversight. And yet this booming industry—where unit trains were shipping more and more oil across Canada, and across the border—ran largely unchecked.⁶²

Safety was not at the top of the Harper Government's priority list. Its focus was streamlining regulation to expedite the transportation of oil by rail; getting oil to market in the face of "market access challenges." A memo prepared for Natural Resources Minister Joe Oliver highlighted the benefits of transporting oil by rail to tidewater to overcome the price discounting that was disadvantaging Alberta's landlocked oil industry. It stated that, "NRCAN is currently meeting with Transport Canada to mutually understand how rail can be part of a solution to current market access challenges." 63

^{61.} Sylvie Fournier, "Enquête: Manquements et aveuglement", *Radio-Canada* (13 February 2014); correspondence obtained by author access to information and privacy (ATIP); National Research Council, Centre for Surface Transportation Technology, *Identification and Evaluation of Risk-Mitigating Countermeasures for Single-Person Train Operation (SPTO)*, prepared for Transportation Technology and Innovation Directorate Policy Group, March 2012, project 54 – R 0193.

^{62.} Opening remarks from Wendy A Tadros, TSB Chair, on the release of Lac-Mégantic railway derailment investigation report R13D0054 (19 August 2014), online: www.bst-tsb.gc.ca/eng/medias-media/discours-speeches/2014/08/20140819.asp; TSB, <code>supra</code> note 27 at 130.

^{63.} Ontario, Access to Information and Privacy Division, reference file A-2013-00003/JD (Ottawa: Transport Canada, 16 July 2013), online: <ATIP-TC-OilbyRail_memos.pdf>.

Fixated on its dual energy superpower-austerity agenda, the government appeared blind to the growing danger posed by the surge in oil-by-rail. Rather than provide additional funding, the government starved Transport Canada of the regulatory resources needed to cope with the oil-by-rail boom. The Rail Safety Directorate's budget was cut by 19% between 2010 and 2014.⁶⁴ The TDG Directorate tiny budget was squeezed and vital departmental expertise was lost due to layoffs or forced retirement.⁶⁵ The Canadian Transportation Agency budget was also frozen during this period.⁶⁶

At the time of the Lac-Mégantic disaster, there were 101 rail safety inspectors and 31 dangerous goods inspectors, only 16 of which were qualified for rail.⁶⁷ These numbers had not changed since 2004.⁶⁸ In 2009 there was the equivalent of one dangerous goods inspector per 14 carloads of crude oil. By 2013 that number had increased to about one in 4,500 carloads. In 2009 there was the equivalent of one rail safety inspector per five carloads of crude oil. By 2013 that ratio had deteriorated to one inspector per 1,584 carloads of crude oil.⁶⁹

Transport Canada was complacent about the potential dangers. A May 2012 internal Transport Canada memo, obtained by Greenpeace Canada, said the Department had:

[I]dentified no major safety concerns with the increased oilby-rail capacity in Canada, nor with the safety of tank cars that are designed, maintained, qualified and used according to Canadian and US standards and regulations. Indeed, Canada and the US work collaboratively to ensure the harmonization of rail safety requirements.⁷⁰

^{64.} Transport Canada, Report on Plans and Priorities, 2009–10, 2012–13, and 2013–14.

^{65.} Communication with tank car safety expert J-P Gagnon and the Professional Institute of the Public service (PIPSC); Fournier, *supra* note 61. Author's calculations from Public Accounts of Canada, various years.

⁶⁶ Ihid

^{67.} TBS, *supra* note 27 at 27; Lucas Powers, "Safety Rules Lag as Oil Transport by Train Rises", *CBC News* (9 July 2013), online: <www.cbc.ca/news/canada/safety-rules-lag-as-oil-transport-by-train-rises-1.1312528>.

^{68.} The Director General of the Transportation of Dangerous Goods (TDG) Directorate confirmed this in testimony before the House of Commons, Standing Committee on Transport, Infrastructure and Communities (27 November 2013).

^{69.} Author's calculations.

 $^{70. \ \} Access to Information and Privacy Division, Transport Canada, on line: <ATIP-TC-Oilby Rail_memos.pdf>.$

There were some dissident voices but their warnings were generally dismissed. Internal briefing notes prepared for the Transport Minister, Denis Lebel, after the 2011 election warned that the industry's lobbying against stricter safety regulations was "counter to the public's expectation for strict regulation and zero risk tolerance [...]. The current safety oversight system is vulnerable to increases in traffic as the existing suite of policy instruments has limitations and diminishing returns that need to be addressed."⁷¹

Jean-Pierre Gagnon, a Transport Canada professional engineer recognized as one of the top rail car specialists in North America, was "retired" by the Harper Government in the spring of 2013. On the eve of his departure he expressed concern about the possibility of a major accident in Canada because of the unprecedented rise in the transportation of petroleum products in unsafe tank cars that the government had been warned about without success for years. He thought that it would take a major accident for the government to take action. 72

The profound defects in Transport Canada's SMS regime have already been discussed. Anaïs Valiquette-L'Heureux's research sheds new light on the dysfunction within Transport Canada in the lead up to the Lac-Mégantic disaster. She documents the fragmented organizational hierarchy, which inhibited communication and information sharing between Transport Canada's regional offices and the Rail Safety and Transportation of Dangerous Goods directorates in Ottawa, and between these two regulatory sections themselves.

More fundamentally, she describes an "organizational narcissism" within Transport Canada in which organizational and personal reputations and turf protection compromised its safety mandate. Senior officials did not believe the oil-by-rail boom constituted a serious threat to public safety and were thus blind to the accumulating danger signs. Any perceived dangers were seen more as anomalies than indications of pathologies in the system.⁷⁴

^{71.} Mike De Souza, "Transport Canada Safety Record Back Under Microscope Following Ottawa Crash" (18 September 2013), online: <0.Canada.com/news/national/passenger-train-collisions-with-vehicules-on-safety-watchlist-since-2010>.

^{72.} Personal communication and Vincent Marissal, "Lac-Mégantic: 'Ça y est, c'est arrivé...'", *La Presse* (20 July 2013), online: <www.lapresse.ca/actualites/dossiers/tragedie-a-lac-megantic/201307/19/01-4672574-lac-megantic-ca-y-est-cest-arrive.php>.

^{73.} Anaïs Valiquette-L'Heureux, La tragédie du [sic] Lac-Mégantic et l'atrophie de la vigilance dans le secteur public, (D Ph D Thesis, Montréal: ENAP, 2016).

^{74.} Ibid at 212.

Senior managers were more concerned with meeting the government's budget targets and protecting their own reputations than the implications of cuts for safety. Their priorities determined the distribution of budget cuts mandated by the Harper Government, which fell disproportionately on departmental sections responsible for safety. Positions were left vacant or merged. Experts were replaced by less qualified staff. ⁷⁶

There was a lack of trust and mutual respect between the intermediate and front-line staff levels which had the expertise, and the decision-making level, which did not, a bias amongst senior management toward company self-regulation, and a predisposition against enforcement of regulations.⁷⁷ Senior staff ignored MMA's transgressions even when they knew MMA was providing false or misleading information.⁷⁸

This produced intense frustration and demoralization amongst the railway inspectorate—a feeling of powerlessness since neither senior management nor the company took them seriously. The SMS regime came to be seen as a joke because it was not accompanied by the necessary enforcement powers. ⁷⁹ Valiquette-L'Heureux notes a critical shortcoming of the external evaluations of SMS, namely that none of them identified this important weakness in the system. ⁸⁰

VI. REGULATORY FAILURE

The aforementioned preconditions—decades of deregulation including in the rail transportation sector, an aggressive anti-regulation and austerity-minded government, a disproportionately powerful railway industry, a dysfunctional regulator, and a delinquent company—set the stage for a series of fateful regulatory failures at Transport Canada.

First, Transport Canada Rail Safety Directorate failed to conduct its own global risk assessment of the sudden expansion in the transportation of oil by rail, and consider regulatory measures to mitigate that

^{75.} Ibid.

^{76.} Ibid at 208.

^{77.} Ibid at 186.

^{78.} Ibid at 152.

^{79.} Ibid at 185.

^{80.} Ibid at 186.

risk.⁸¹ The sudden emergence of unit trains pulling 100 or more tank cars carrying up to 80,000 barrels of oil should have been a wake-up call. The Transport Canada policy group was aware of the change but given the fragmented nature of departmental operations had not communicated this to the Rail Safety Directorate.

The Transportation of Dangerous Goods Directorate identified oil as an issue requiring greater regulatory oversight. However, its assessment focused on the need for more inspections at rail loading facilities. It did not consider misclassification of crude oil as constituting an elevated risk level. The accuracy of imported or domestically produced crude oil classification was not verified in transit.⁸²

Reflecting the general view among Transport Canada officials, oil was not a dangerous good that required an Emergency Response Assistance Plan (ERAP).⁸³ A 2006 internal audit of the ERAP system identified a number of problems, which the Department had promised to resolve. Three months prior to the accident, Transport Canada declared that it had fully complied with the audit recommendations and the system was sound. However, despite internal warnings to the contrary, oil was still not included as a dangerous good requiring an ERAP program.⁸⁴

Second, Transport Canada failed to act on long-standing warnings from the TSB and its US counterpart, that the standard DOT-111 tank cars being used to transport oil and other dangerous goods were unsafe. Regulators had known since the early 1990s that these containers had a propensity to puncture during derailments.⁸⁵

In 2011, the AAR recommended design changes to improve the safety of the DOT-111 tank cars carrying dangerous goods. ⁸⁶ While these modifications were adopted for new cars, neither the US nor Canadian regulator required existing tank cars to be retrofitted to this higher standard. Oil and the tank car leasing companies continued to

^{81.} TSB, supra note 27 at 93.

^{82.} Ibid at 93, 95,112-13.

^{83.} Emergency response specialist, see Sylvie Fournier, *supra* note 61, pleaded with his bosses to have crude oil declared a dangerous good requiring ERAP, but to no avail.

^{84.} Valiquette-L'Heureux, supra note 73 at 56.

^{85.} See for example Transportation Safety Board of Canada, Railway Investigation Report R95D0016 (Québec: TSB, 21 January 1995).

^{86.} Ibid; TSB, supra note 27 at 48; Powers, supra note 67.

resist calls for their replacement. At the time of the accident, 80% of the tanker fleet in Canada and two thirds of the US fleet carrying oil were legacy DOT-111 tank cars as were all 72 of the cars on the Lac-Mégantic train.⁸⁷

Third, Transport Canada was either unaware or failed to heed warnings about the extreme volatility of Bakken oil. Geological studies as early as 2010 noticed that Bakken shale had unusually volatile and corrosive properties. By the fall of 2011, the US Federal Railway Administration (FRA) was aware of the dangers of Bakken crude. Internal National Transportation Safety Board (NTSB) documents revealed that it was aware of potential problems and concerned about the possibility of a major accident caused by oil unit trains. 89

In 2012, following the Cherry Valley, Illinois, investigation the NTSB recommended US Pipeline and Hazardous Materials Safety Administration (PHMSA) to restrict the transportation of crude oil with high hazard PG I and PG II classifications by the post-2011 upgraded DOT-111 tank cars and recommended even further design improvements for these cars. ⁹⁰ Neither Transport Canada nor its US counterpart, the Federal Railroad Administration, acted to implement this recommendation. The contents of Lac-Mégantic train were misclassified as low hazard (PG III) when in fact they were PG II classification, the equivalent of gasoline.

A month before the disaster Irving Oil officials raised concerns about improper testing of Bakken coming into the refinery. Irving typically received Bakken crude with classification PG III, the least volatile

^{87.} TSB, supra note 27 at 38; see also Powers, supra note 67.

^{88.} North Dakota—The Next Hazardous Materials Frontier, online: <msnbcmedia.msn.com/i/MSNBC/Sections/NEWS/140115_Bakken_Inspection_.pdf>.

^{89.} Following a 2009 derailment in Cherry Valley, Illinois, the NTSB recommended that crude oil classified as PG I and PG II be carried in upgraded tank cars. In 2011, the AAR put in place upgraded standards. The NTSB then followed with its recommendation that crude oil with PG I and PG II classification be transported in tank cars built to the new AAR standards. TSB, *supra* note 27 at 48.

^{90.} Pipeline and Hazardous Materials Safety Administration (PHMSA), "Hazardous Materials: Rail Petitions and Recommendations to Improve the Safety of Railroad Tank Car Transportation" (RRR) (9 June 2016), online: https://www.federalregister.gov/documents/2013/09/06/2013-21621/hazardous-materials-rail-petitions-and-recommendations-to-improve-the-safety-of-railroad-tank-car; TSB, supra note 27 at 48–49.

substance.⁹¹ However, the company sent back the empty rail cars (which contained crude residue) using the PG I classification.⁹² It is unlikely that Transport Canada was testing Bakken crude, or aware prior to the accident of the discrepancy in classification uncovered by Irving. After a four-year Transport Canada investigation, Irving was found guilty and fined \$4 million for misclassification of oil, but its own oversight role has not been called into guestion.⁹³

Fourth, the CTA failed to monitor the change in MMA's cargo and operations. The CTA oversees railway insurance coverage, the main criterion for its granting of operating certificates.⁹⁴ It approved MMA's insurance coverage when the company first began to operate in Canada in 2002, carrying mainly forest products. The CTA continued to provide the company with insurance certificates in subsequent years, including in 2013.⁹⁵

When an operational change occurred the company was required to apply to CTA for a variance. However the magnitude and type of changes necessary to inform CTA were left to the railway company to determine. When it came to the increase in oil traffic or the commencement of single-person train operations, MMA did not seek a variance to its operating certificate nor increase its liability insurance. Since it did not proactively monitor the company, CTA was not aware of the changes. The volume of oil transported by MMA increased by 280% from 2011 to 2012. At the time of the accident MMA's insurance policy was just \$25 million.⁹⁶

Fifth, Transport Canada failed miserably in its oversight of MMA's operations—its poor accident record, multiple safety violations, repeated non-compliance, non-adherence to its own rules, culture of

^{91.} Grant Robertson & Kim Mackrael, "Irving Raised Oil Testing Concerns a Month Before Lac-Mégantic Tragedy", *The Globe and Mail* (21 December 2013); Jacques Poitras, "Irving Oil Viewed as Shipper in Lac-Mégantic Explosion", *CBC News* (17 December 2013).

^{92.} Kim MacKrael, "How Bakken Crude Moved from North Dakota to Lac-Mégantic", *The Globe and Mail* (8 July 2014); Poitras, *supra* note 91.

^{93. &}quot;Irving Oil Pleads Guilty, Fined after Probe into 2013 Lac Mégantic Disaster", Canadian Press (26 October 2017).

^{94.} The Agency is an independent administrative body of the Government of Canada. Its role in the economic regulation of the rail industry includes: determining railway costs for regulatory purposes; processing and approving applications including certificates of fitness; approvals for railway line construction; and determining regulated railway inter-switching rates.

^{95.} TSB, supra note 27 at 94–95, 128.

^{96.} *Ibid* at 92, 128; MMA's insurance coverage: "Québec Judge Grants MMA Railroad Creditor Protection", *Canadian Press* (8 August 2013).

negligence, the poor condition of its locomotives and infrastructure, etc.—especially in light of the large volumes of dangerous goods the company was hauling.⁹⁷

MMA was a company with conflict-ridden labour-management relations, certainly not a relationship conducive to fostering a culture of safety. The inclination of the intermediate and senior management was to punish behaviour that was not expressly ordered. Employees were discouraged from proactively taking initiatives to enhance safety. Although MMA had a whistleblowing provision as required by its SMS, it was never used. Employees believed that it would result in recriminations against them rather than efforts to fix the problem identified. It was a culture that fostered disengagement and which led employees to focus on protecting their own backsides from blame rather than exposing situations of potential danger in company operations. 99

Transport Canada failed to identify that MMA's employee testing program was not effective in ensuring their understanding and compliance with rules and regulations; nor that its recertification program fail to ensure locomotive engineers understood and properly applied train securement rules and instructions.¹⁰⁰

MMA's defective SMS was a poster child for the overall shortcomings of the SMS regime described earlier.¹⁰¹ Its deficiencies included the limited number and scope of Transport Canada audits, the lack of follow-up to ensure compliance, and its failure to impose penalties when the company did not implement its corrective action plans. Inspectors were frustrated and demoralized that nothing could be done to change the company's behaviour and thus believed resources devoted to SMS audits were wasted.¹⁰²

MMA did not do a proper risk assessment with appropriate risk-mitigation measures when it began hauling crude oil in unit trains, and parking these trains unattended on a steeply sloped main track at Nantes. Thus, additional lines of defence to reduce risks for these

^{97.} TSB, supra note 27 at 125.

^{98.} Valiquette-L'Heureux, supra note 73.

^{99.} Ibid at 183.

^{100.} TSB, supra note 27 at 60-61.

^{101.} Valiquette-L'Heureux, supra note 73 at 87-90, 125-26.

^{102.} Ibid at 127.

^{103.} Ibid at 92-93, 123.

major operational changes were not considered. Transport Canada failed to oversee these changes and ensure that appropriate precautions were taken.

Transport Canada ignored concerns about MMA's fatigue management practices. The MMA operator was awake for 18 hours leading up to the accident, including 10 ¼ hours operating the train: a journey that should normally have taken four hours. Transport Canada regulations allowed MMA to operate on damaged tracks, with speed restrictions correlated with the level of severity. Almost the entire route had speed restrictions of 25 mph or less. Despite federal and provincial infrastructure subsidies, a manager interviewed by Valiquette-L'Heureux said it was paying almost no attention to the Quebec section of its operation. MMA's railway equipment inspection manager told Quebec provincial police investigators (SQ) the company had cut its repair crew from 12 to 3 employees.

A few years earlier, a joint Transport Canada Federal Railroad Administration safety audit of MMA's US single crew operations had expressed concerns regarding its employee fatigue management practices. Also ignored were cautions raised by the 2012 NRC study as well as Transport Canada fatigue management guidelines completed a few months before the accident, which called on companies to provide specific training to single operators and provide proof of successful completion of such training.

Sixth, the Canadian train securement rules (CROR-112) were extremely vague and in the case of MMA were not properly scrutinized by Transport Canada. They required only that securement was "sufficient" to hold the train, leaving companies wide discretion to make their own decisions about securement and associated safety defences. In investigations going back to the mid-1990s the TSB criticized Transport Canada regulations as too vague. At the time of Lac-Mégantic, Transport Canada had not addressed the TSB's recommendations. ¹⁰⁸

^{104.} Ibid at 130.

^{105.} Wendy Gillis, "Transport Canada Keeping Secret Details MM&A Safety Inspections", *Toronto Star* (15 August 2014).

^{106.} TSB, supra note 27 at 66. The FRA also conducted a series of cognitive task analyses.

^{107.} Ibid at 58-59, 99-105.

^{108.} TSB, Advisory Letter (18 July 2013).

As noted, Transport Canada failed to oversee MMA's practice of leaving trains unlocked and unattended on the main track on a steep grade with no other back-up precautions, other than the hand brakes and the locomotive independent brake to prevent uncontrolled movement. Transport Canada rejected a 2002 TSB recommendation to lock unattended locomotives, as "unwarranted." 109

Transport Canada either approved, or ignored, MMA's own operating instructions which specified that nine hand brakes were sufficient to hold the train regardless of the steepness of the slope on which it was parked. By contrast CP's instructions specified 18 hand brakes were needed to hold a train of that length on such a steep slope. Some company instructions required 30 hand brakes to be set in those circumstances. The locomotive engineer applied seven hand brakes. The company failed to provide sufficient training on the securement rules to ensure the locomotive engineer understood the procedure for verifying that the retarding force of the hand brakes was sufficient by itself to hold the train. The TSB report concluded that to hold a train that heavy, on a grade that steep, with air brakes released, would have required between 18 and 26 hand brakes.

MMA had no safety defences besides hand brake and the locomotive independent brake to prevent uncontrolled movement. The locomotive engineer could not park the train on the siding with derails in place because it was being used for storing empty boxcars. He had no second crew to provide back-up securement verification. The lead locomotive did not have an automatic restart system and the two locomotives equipped with such a system, which would have restored the air pressure in the locomotive independent brake system, were both disabled. Most egregiously, Transport Canada allowed MMA to prohibit the locomotive engineer from setting the air brake on the tank cars as a back-up safety defence. Even after the loss of the independent brake, the TSB report said that as a secondary defence, "it would likely have secured the train [...] until morning."

^{109.} Safety advisory letter to Transport Canada on the securement of unattended locomotives from Robert Johnston, Acting Director, Investigation Operations Rail/Pipeline (19 July 2013) 617-08/13.

^{110.} TSB, supra note 27 at 21.

^{111.} Ibid at 101.

^{112.} Ibid at 99-105.

^{113.} Ibid at 104.

As *Railway Age* magazine expert David Thomas wrote, "any safety regime that relies on human infallibility is delusional. Effective safety systems expect and anticipate human fallibility; they don't make perfect behaviour a critical dependency."

Finally, Transport Canada allowed MMA to run its oil trains with a single-person crew (SPTO), which is seen by many experts as central to the Lac-Mégantic disaster. MMA informed Transport Canada in December 2011 that it intended to extend its operation of single-person crew trains from Farnham, south of Montréal, through 11 communities including Lac-Mégantic—a practice already underway from Nantes to the Maine since 2010.

Transport Canada Quebec office informed MMA that this significant change to its operations required a new risk assessment. MMA produced a revised risk assessment, which contained significant deficiencies. It did not address the risks of a lone operator performing tasks previously performed by the second crew, such as securing a train as well as leaving it unattended at the end of the shift. It did not consider whether persons working alone would be subject to fatigue and cognitive deterioration, and outline measures to mitigate this. 116 Proceeding with single-person train operation without accounting for, and mitigating the reduction in safety, was insanity according to one source.

Contrary to findings of previous TSB investigations and number of scientific studies including by the Federal Railroad Administration, ¹¹⁷ the company claimed that was inherently safer than two-person operations because the locomotive engineer would have fewer distractions. ¹¹⁸ It did not provide any evidence for its claim, simply asserting it to be true based on its experience south of the border.

^{114.} David Thomas, "Safety-Driven Railway Realignments", *Railway Age* (10 June 2014), online: <www.railwayage.com/index.php/blogs/david-thomas/safety-driven-railway-realignments. html>.

^{115.} TSB, supra note 27 at 65-67, 115-18.

¹¹⁶ Ihid at 66

^{117.} *Ibid* at 68. The FRA conducted a series of cognitive tests analysis. Among other things it found: "conductors and LEs not only worked together to monitor the operating environment outside the locomotive cab, they also work together to plan activities, to solve problems, and to plan and implement risk-mitigation strategies."

^{118.} Ontario, Railway Investigation Report R09T0057 (Nanticoke: Transportation Safety Board of Canada, 2009).

Transport Canada's Montréal office balked at MMA's request for permission to proceed with SPTO. One official stated: "I want MMA to explain how it can have the necessary discipline to run its trains with one person, because it is precisely this lack of discipline that has led to our concerns and actions these last years." ¹¹⁹

This prompted MMA-Canada CEO Robert Grindrod to write to the railway industry lobby, the RAC: "It seems we are facing more obstacles by Transport Canada. The Montréal office has been opposed to this from the beginning." A senior official at RAC responded: "Leave it to me Robert; let me make some calls."

The United Steelworkers Union (USW), which was in collective bargaining with MMA at the time, vigorously opposed SPTO during negotiations, but was told by the federal mediator that the decision was outside of the purview of collective bargaining. It was, he said, Transport Canada's decision to make. Under duress, it agreed to change its collective agreement in April 2012 to allow SPTO as long as MMA promised there would be no job losses. The UCTE, which represented the inspectors, also objected in a letter to the Minister.

A month after the RAC executive promised to take care of MMA's "problem," MMA and the RAC met with Transport Canada at its Montréal office. At this meeting Transport Canada advised MMA that it was not necessary for it to approve the shift to SPTO because of *General Rule M.* MMA needed only to comply with relevant rules and regulations.¹²¹

Shortly after this meeting the NRC submitted its two-year report on SPTO that Transport Canada had commissioned. The report raised a number of red flags, concluding that, "[R]educing the train crew to one person without appropriate operational changes and technological intervention diminishes safety." The NRC report recommended

^{119.} The communications between officials from MMA, Transport Canada and the Railway Association of Canada are from e-mail correspondence obtained by Radio-Canada, Fournier, *supra* note 61. Also correspondence obtained by the author under Access to Information and Privacy (ATIP).

^{120.} House of Commons, Standing Committee on Transport, Infrastructure and Communities, *Testimony* (27 March, 8 and 29 April 2014).

^{121.} Fournier, *supra* note 61; correspondence obtained by the author under Access to Information and Privacy (ATIP).

^{122.} National Research Council, *supra* note 61. It should be noted that MMA told NRC researchers that its SPTO operators worked a maximum of six-hour shifts when in fact their shifts averaged 10–12 hours.

the use of various risk-mitigating measures: a comprehensive and systemic approach to SPTO including sustained training, educational programs and specifically designed operational procedures; and that Transport Canada, together with the railway companies, identify a suitable route to evaluate SPTO, and conduct a two-year pilot test program on this route complete with detailed monitoring and evaluation.

Transport Canada simply ignored its recommendations and gave the go-ahead to MMA, which began to run its oil trains with a single crew in July 2012. It did so without notifying Transport Canada in advance as promised. The Transportation Safety Board report found that although MMA's SPTO plan called for 4 hours of training for locomotive engineers, in fact training consisted of a 20-minute briefing in the manager's office. Tom Harding's training occurred within an hour of his first SPTO experience. It undertook no job-task analysis, nor any analysis of potential hazards associated with those tasks. Nor did it abide by its commitment to decrease train length and weight from 100 cars to 50 cars for SPTO trains, or to improve track conditions enabling trains to increase speed, thereby allowing crews to complete their tour of duty in a timely manner.

The final TSB report listed 18 "causes and contributing factors" behind the disaster. SPTO was not among them. It was placed in a category of "findings as to risk." Interestingly, the draft report submitted to the Board by the investigative team concluded there were six "causes and contributing factors" relating to SPTO.¹²⁶

It concluded MMA's poor safety record was not conducive to safe implementation of SPTO. It should have raised alarm bells at Transport Canada headquarters that allowing MMA to operate SPTO trains greatly heightened the risk to public safety. Furthermore, it found that although SPTO was a significant operational change requiring risk assessment, Transport Canada did not provide adequate oversight of

^{123.} TSB, supra note 27 at 122-23.

^{124.} Ibid at 67.

^{125.} Personal communication, corroborated by witness testimony, criminal trial. Alison Brunette, "MMA Train That Derailed and Exploded at Lac-Mégantic: Nearly 3,000 Tonnes Too Heavy, Trial Hears", *CBC News* (23 October 2017), online: <www.cbc.ca/news/canada/montreal/mma-trial-train-overweight-1.4367611>.

^{126.} TSB, *supra* note 27, Investigation Team Draft Report (7 April 2014) at 99–101, obtained by the author from a source.

MMA to ensure risks of this change, notably that the absence of second crew removed an important safety defence to confirm securement and related safety issues—were adequately mitigated. It concluded that SPTO training was insufficient to ensure locomotive engineer understood and applied rules and instructions; that there were no procedures in place for locomotive engineer to confirm with the Farnham rail traffic controller the number of hand brakes applied.

CONCLUSION

A year almost to the day after it had converted to single-person trains, an MMA train carrying 72 tank cars loaded with Bakken shale oil broke loose from where it was parked at the top of a hill 11 km from Lac-Mégantic. The runaway train was travelling at 101 km an hour when it derailed on a curve in the centre of town at 1:14 AM July 6, 2013, spilling 90% of its oil which exploded and burned throughout the night and for three days. Forty-seven people died that night; 27 children were orphaned. It destroyed the town centre, spilled 6 million litres of oil—the largest land-based oil spill in North America—contaminating air, soil and water. Combining these factors, it was a disaster unprecedented in modern Canadian history outside of wartime.

Perspectives differ regarding responsibility and accountability for the Lac-Mégantic disaster. Industry spokespersons blamed the accident solely on the fact that the locomotive engineer did not set enough hand brakes. The Transport Minister Lisa Raitt blamed the operator and the company for not following the rules in place. She also pointed the finger at her officials saying: "I've told Transport Canada officials that the public expects better of them." When asked by CBC journalist Dave Seglins about Transport Canada's accountability, she implied that senior managers were replaced: "If you take a look at the current listing of people at Transport Canada you will see there is a marked change, people who were there pre- and post-Lac-Mégantic [...]." 128

^{127.} Savoie, supra note 17 at 224.

 $^{128. \}quad On line: < www.cbc. ca/news/canada/lac-megantic-disaster-led-to-transport-canada-shakeup-says-minister-lisa-raitt-1.3134120>.$

Neither she nor her successors have explicitly acknowledged ministerial or Cabinet responsibility for what happened at Lac-Mégantic. The Transportation Safety Board, though not mandated to cast blame explicitly, pointed the finger at both the company and the regulator, but pulled its punches with respect to the latter. Three front-line employees and the bankrupt company MMA have been charged with criminal negligence causing death, though not its senior executives, Chairman or Board of Directors.

This paper has sought to shed additional light on what happened, how and why it happened, and who bears responsibility, up to and including at the highest bureaucratic and political levels. However, many loose ends and unanswered questions remain. Their answer is crucial to understanding the root causes of the tragedy—a precondition to ensuring it never happens again. A public inquiry is an important vehicle for uncovering such truths. For an accident of this magnitude, it is immensely troubling that both the previous government and the current government still refuse to hold an independent judicial inquiry into the disaster.

In the nearly five years since the Lac-Mégantic tragedy, Transport Canada has put in place a host of measures to improve rail safety and restore public confidence, indirectly acknowledging its role and responsibility. Whether it has succeeded in this regard, whether the necessary reforms have been made to the railway safety regime is a crucially important question. The answer will determine the likelihood of preventing a future disaster.

^{129.} The 2007 ministerial guidelines issued by the Privy Council Office read: "Ministers are individually responsible to Parliament and the Prime Minister for their own actions and those of their department, including the actions of all officials under their management and direction, whether or not the Ministers had prior knowledge." They were changed in 2011 to read: "Ministerial accountability to Parliament does not mean that a Minister is presumed to have knowledge of every matter that occurs within his or her department or portfolio, nor that the minister is necessarily required to accept blame for every matter." cited by Gloria Galloway, "Tory Changes to Accountability Rules Leave Harper Blameless in Duffy Affair", The Globe and Mail (28 November 2013), online: <www.theglobeandmail.com/news/politics/tories-2011-guidelines-wouldnt-makepm-accountable-for-wrights-actions/article15643130/?cmpid=rss1>.