

The Lac-Mégantic Disaster

Where Does the Buck Stop?

Bruce Campbell





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Summary

CLOSE TO MIDNIGHT on July 5, 2013, a train hauling 72 tanker cars loaded with crude oil, parked on the main track on a steep grade, unlocked and unattended, in Nantes, Quebec. It was owned and operated by a U.S. company – Montreal, Maine and Atlantic Railway (MMA). Just before 1:00 a.m. the driverless train began to roll towards the town of Lac-Mégantic 11 km away. It quickly gathered speed, reaching 101 km/h as it approached a sharp curve in the heart of town. There it derailed spilling its cargo, which exploded in a fiery inferno that ripped apart this community of 6000. Forty-seven people perished that night in one of the worst rail disasters in Canadian history.

How could such a catastrophic accident occur? Was it the result of an improbable sequence of events? An “accident” that occurred in spite of a sound regulatory system and corporations committed to public safety? Was it the result of a unique combination of human errors?

Or was Lac-Mégantic the consequence of a flawed regulatory regime – that in practice allows companies to make their own judgments about the balance between cost considerations and the risks to public safety – exacerbated by the enormous increase in the transportation of oil by rail over the last five years, with the people of Lac-Mégantic paying the terrible price?

Was the Montreal, Maine and Atlantic Railway (MMA) a rogue company – a “bad apple” that ignored its own directives; or was it simply doing what it was expected to do by its shareholders, and allowed to do under the regulatory framework? And how far does the chain of responsibility ex-

tend beyond the company — to major players in the rail and oil industries, and to government policy makers?

The backdrop to Lac-Mégantic is the wild-west boom in the production of unconventional oil — shale oil from North Dakota and bitumen from Alberta — and the rush to get it to market. The lack of pipeline capacity left rail as the main alternative for the oil companies to get their product to eastern refineries and coastal ports for shipping to overseas markets. Close to 275,000 barrels of oil per day are now being transported by rail in Canada, from almost nothing five years ago. Great for its bottom line, the rail industry has met this spectacular surge in demand, for the most part, using tank cars that were not built for carrying hazardous materials.

Federal Deregulation

Canadians trust that their government will take *reasonable* measures to protect them, their workplaces, communities and their environment. Like the young people partying at the Musi-café in Lac-Mégantic, we are all in a way, oblivious to the risks that government imposes on us. When an accident like Lac-Mégantic happens, people's confidence in the system is shaken. They ask, for example, how is allowing the company to operate that train with a one-person crew a *reasonable* precaution?

Over the last 30 years, Canadian businesses have crusaded for large-scale reduction or elimination of regulations, which they mostly see as a cost and a burden. Governments have devolved more and more power to companies to make their own judgments about risk to public safety. In this cozier relationship between government and corporations, citizens are in effect being asked (actually, they are *not* being asked) to bear greater risks: risks of which they are largely unaware, and have little or no role in establishing.

The latest manifestation of this trend is the Harper government's regulatory policy, the *Cabinet Directive on Regulatory Management (CDRM)*, which took effect in late 2012. This government's *laissez-faire* attitude to regulation is embodied in its incessant use of the term "red tape," which implies that regulations are burdens on business rather than a legal mechanism to protect the public interest.

The CDRM imposes a number of hurdles that must be overcome in order for a government department to pass a new regulation. Essentially, they serve to hinder the introduction of regulations that would undermine cost

competitiveness. Consistent with business preference, the CDRM promotes non-regulatory options such as “self-regulation.”

The CDRM goes beyond previous regulatory policy in several ways. It imposes a “one-for-one” rule, forcing departments and agencies to repeal at least one existing regulation for every new one that imposes an administrative burden (i.e., red tape) on business. Secondly, although assessment of a proposed regulation’s impact is supposed to include a calculation of benefits along with costs – and its impact on the health, safety and the environment, on vulnerable groups, etc. – it is in practice determined solely by anticipated costs, most of which are short-term costs to business. Third, given the Prime Minister’s penchant for control, regulatory proposals will not generally move forward without the nod from the Prime Minister’s Office.

Concurrent with domestic deregulation, Canada-U.S. regulatory harmonization initiatives have been under way since NAFTA, most recently via the 2011 *Regulatory Co-operation Council (RCC)*. Driven by business, the purpose of these initiatives is to reduce or eliminate regulatory differences between the two countries.

Railway Deregulation

Over the last 25 years, Transport Canada has increasingly devolved the responsibility for, and management of, safety rules to the companies themselves.

Changes to the Canada Transportation Act in the 1990s spurred a major restructuring of large carriers, resulting in a proliferation of smaller railways. One such line, the Montreal, Maine and Atlantic (MMA), which runs through Lac-Mégantic, embarked on a drastic cost-cutting exercise, laying off staff and cutting wages, in an effort to turn a profit.

Amendments to the Railway Safety Act (RSA) enacted in 2001 gave companies the authority to implement *safety management systems (SMS)*, enabling companies to develop their own rules and standards. They allow companies to make their own judgments about the balance between cost considerations and the risks to public safety. Under this system, federal inspectors audit and approve the SMS submitted by the companies, but carry out far fewer on-site inspections. Referred to as co-regulation between government and industry, this is in effect, self-regulation – a major surrender of Transport Canada’s regulatory authority.

In investigations going back to the mid-1990s, the Transportation Safety Board (TSB) criticized Transport Canada regulations for not ensuring that

brakes are properly secured to prevent unwanted movement of trains, calling them too vague. Its rules say that only “sufficient” brakes must be applied. The TSB has warned repeatedly against leaving trains unlocked and unattended on the main track. Until Lac-Mégantic, Transport Canada declined to address TSB’s findings and criticism.

Nor has Transport Canada acted on a TSB recommendation to bring in fail-safe measures for stopping trains automatically, which the industry insists are not necessary given its safety record and their additional cost.

Regulators in both Canada and the United States have known since the early 1990s that the DOT-111 (the Canadian equivalent is CTC-111A) tanker cars had a propensity to puncture during derailments. The DOT-111 is an all-purpose tanker car with a single steel shell and was not designed to carry hazardous products. The Transportation Safety Board documented its concerns repeatedly.

Design modifications to improve the safety of newly constructed DOT-111 tanker cars have been adopted by both countries. There is no requirement, however, to modify existing tank cars, which is highly problematic since their average life span is 40 years. Eighty percent of the tanker fleet in Canada and two-thirds of the U.S. fleet are carrying oil in the older model, including all the cars in the Lac-Mégantic derailment.

Despite the longstanding warnings, Transport Canada appears not to have pressured the rail industry to enhance rail safety measures and replace the CTA-111A tanker cars. A May 2012 internal Transport Canada memo, obtained by Greenpeace Canada, said the department had “identified no major safety concerns with the increased oil by rail capacity in Canada, nor with the safety of tank cars that are designed, maintained, qualified, and used according to Canadian and U.S. standards and regulations...”

In December 2011, the Environmental Commissioner in the Auditor-General’s office, Scott Vaughan, issued a scathing report on Transport Canada’s inability to adequately enforce its rules to protect the public against the threat from major spills of dangerous goods, including oil. Transport Canada has dragged its feet on fully implementing its recommendations, most recently extending the compliance target to April 2014.

In Canada, railways must operate with at least two-person crews. The Minister of Transport, Denis Lebel granted only two exemptions from this rule for a freight railway, one of which was Montreal, Maine and Atlantic (MMA). He did so, despite objections from the union representing the workers and MMA’s troubling safety record. Why was this exemption granted? Was it in part, a result of bilateral regulatory harmonization pressure to

adopt the U.S. standard – which allows one-person crews – since the railway crossed national borders?

The industry – through its powerful lobby, the Railway Association of Canada, or through the companies lobbying directly – vigorously resists regulations, where in its view, costs outweigh benefits. In the months leading up to the accident, lobbyists repeatedly advocated against new safety measures for the transportation of dangerous goods. The industry deploys substantial resources to advance its interests.

Companies are extremely reluctant to discuss their lobbying activities publicly, but records filed with the Commissioner of Lobbying suggest very intense lobbying activities. For example, these records show that, beginning in 2013, the Railway Association of Canada’s lobbying efforts sought “to inform [regulators] about the movement of dangerous goods, including voluntary and regulatory requirements, volumes, customers and safety measures *to assure them that current regulations for dangerous goods transportation are sufficient.*”(italics added). In post-accident disclosures it removed its claim that current regulations were sufficient.

Transport Canada currently has 35 inspectors in its Transportation of Dangerous Goods division to cover all transportation modes. The Conservative government did not increase the number of inspectors to handle the enormous increase in oil-by-rail traffic over the last five years. While in 2009 there was one inspector for every 14 tank carloads of crude oil, by 2013 there was only one inspector for every 4,000 tank carloads.

In its austerity drive to eliminate the deficit, the Harper government has not spared rail safety. Conservative budgets from 2010–11 to 2013–14 – a period of enormous expansion in oil-by-rail traffic – slashed the rail safety budget by 19%. Transport Canada also shaved the very small Transportation of Dangerous Goods budget over those four years, from \$14 million to \$13 million. Moreover, in spite of expectations that oil transport by rail will continue to grow rapidly, it plans to freeze the budgets for both divisions thereafter until at least 2015–16.

In Canada, shale oil and bitumen transported by rail has increased from 500 carloads in 2009 to an estimated 140,000 carloads in 2013. North American rail giants CN and CP have both been riding the oil wave, reaping huge increases in profits. CP estimates that it will haul 70,000 carloads in 2013, up from 13,000 in 2012. CN anticipates carrying 60,000 carloads in 2013, double the 30,000 hauled last year. Shipments by rail of Alberta bitumen are expected to rise by 425,000 barrels per day by end of 2014 compared to 130,000 barrels per day currently.

Irving oil, whose Saint John refinery, the largest in Canada, has also been a beneficiary of the unconventional oil boom. It has dramatically increased delivery of the cheaper Bakken crude.

Over the last decade, accidents where dangerous goods spilled, have been few, and have remained stable or even declined slightly since 2007. However, these soothing statistics fail to take into account a Lac-Mégantic — a rare event with catastrophic consequences. Faulty risk management models have lulled the industry and regulators into a sense of complacency, downplaying the risks even as skyrocketing oil shipments increased the odds of such an accident happening.

The Accident's Aftermath

Corporate buck-passing began immediately after the accident. MMA CEO Ed Burkhardt conceded the company's partial responsibility, but was quick to shift the blame for the derailment to the MMA engineer for allegedly not applying enough brakes, and to the volunteer firefighters responding to the fire on the train for shutting down the engine. Burkhardt would not take responsibility for leaving locomotives unattended; or using the passing siding at Nantes as a parking lot for empty cars.

Nor would he take responsibility for his company's insistence on using one-person crews. Railway unions have long maintained that, because of the complexity of the operation, at least two persons are needed. Asked why was Burkhardt operating trains with a single crew, the response from the U.S. union was, "because he can."

The Quebec Ministry of the Environment ordered the companies responsible — including MMA, World Fuel Services, and CP Rail — to pay for the environmental cleanup costs. All have refused. MMA stopped paying the cleanup bill, shifting responsibility to its insurer, XL Group, which in turn is resisting the payout as it seeks to demonstrate negligence on the company's part.

Canadian Pacific's CEO pointed the finger at the chemical and petroleum companies, which own the vast majority of tank cars, for stonewalling efforts to speed up the replacement of DOT-111 tank cars. He also cast blame on Transport Canada for forcing railways to transport any cargo (including oil) that meets Transport Canada's guidelines; and blamed the regulator for not requiring sturdier rail cars. The chemical industry denied that it has been dragging its feet.

Industry spokespersons also deny any responsibility for the disaster, notwithstanding their longstanding resistance to new regulations. Moreover, both the rail and petroleum industry officials are adamant that, despite the accident, continued growth in transportation of oil by rail is inevitable.

Governments' Response

In the immediate aftermath, both Prime Minister Harper and Quebec Premier Marois visited Lac-Mégantic. The Prime Minister assured the community that the Transportation Safety Board (TSB) and Transport Canada were conducting a full investigation and that his government would act on its recommendations to prevent a repeat of the tragedy.

Less than two weeks after the accident Transport Canada, in response to Transportation Safety Board recommendations, issued emergency directives including that all railways must ensure that at least two qualified locomotive operators are assigned to any train transporting dangerous goods; that no locomotive attached to a train transporting dangerous goods is to be left unattended and unlocked on a main track or siding; and outlined more detailed requirements regarding the application of braking systems on parked trains. Why did it take a Lac-Mégantic for Transport Canada to act on earlier TSB warnings?

The Transport Safety Board investigation of the content of the crude oil on the Lac-Mégantic train revealed that it was more volatile than indicated by its classification at the time it was loaded onto the train in New Town, North Dakota. It was classified as the least volatile, but should have been classified as having a higher volatility — equivalent to gasoline.

The TSB also said that, even if the oil *had* been properly classified, it would still have been allowed to be transported in the DOT-111 tank cars, questioning once again the safety of these cars. Interviewed by CBC's *The House*, Transport Minister Lisa Raitt — asked whether old DOT-111s should be allowed to transport dangerous goods going forward — simply re-stated the current policy that only new cars have to be built to the upgraded standard.

The standard response from the Transport Minister's office to questions about the accident is that it will wait until the Transport Safety Board and its own investigations have been completed before commenting or taking further action. TSB investigations often take a year or more, and recommendations on rail safety could take five years or longer to develop and implement according to Transport Canada officials.

As the shock and trauma of the accident fade, and media coverage diminishes, it will be easier for the government to manage the crisis of confidence that this disaster has engendered in the public mind. Time will help the government in its effort to revise the narrative so as to obscure the root cause of the accident, namely its failure to properly regulate the industry.

On the other hand, Lac-Mégantic has heightened public awareness of the dangers of huge shipments of crude oil passing through their communities, whether by pipeline or rail. Provinces and municipalities are demanding stringent safety measures, and to know the nature of the dangerous goods to which they are being exposed.

As the Lac-Mégantic investigations drag on without resolution, and without concrete steps to reform the regulatory framework, it will be more difficult for the government to convince Canadians that it is genuinely committed to protecting the public interest in its rush to bring oil sands production to overseas markets.

Conclusion

It is still early days in the aftermath of Lac-Mégantic, a process that will drag on for years — investigations, lawsuits, trials, public inquiries, expert panels, parliamentary committees.

In my view, the evidence to date points to a deeply flawed regulatory system; cost-cutting corporate behavior, which jeopardizes public safety and the environment; and responsibility extending to the highest reaches of corporate management and government policy-makers. It seems that, unless new evidence comes to light, MMA — an admittedly poor performer compared to other companies — was simply taking advantage of the freedom it was granted by the regulatory system.

Although each industrial disaster is different, there are common patterns. Professor Susan Dodd's book *The Ocean Ranger: Remaking the Promise of Oil* provides valuable insights into what to expect in the aftermath of Lac-Mégantic.

Dodd describes how the myth of corporate self-regulation is exposed every time corporate risk-taking hurts a community. In the aftermath of the disaster, another narrative, the myth of technological learning from the accident, will resurrect the self-regulation myth. It re-establishes the false supposition that corporations are, by design, “responsible citizens” — rather than institutions deliberately structured to enhance shareholder value

above all else — that have the expertise and should be left to their own devices to manage their operations safely.

Lac-Mégantic, like the *Ocean Ranger*, is also related to the promise of oil — to the future of Canada as an “energy superpower.” The 47 citizens who perished in Lac-Mégantic, although it is never described in these terms, are seen in the dominant narrative as unfortunate casualties of a project considered vital to the country’s well being. While government and the industry will learn from this accident, they consider these to be unstoppable economic forces against which ordinary citizens are powerless.

The challenge in preventing these scenarios from playing out as they often have in past industrial accidents is to keep the spotlight on the root causes — corporate negligence and regulatory failure — in order to hold to account those responsible, including those at the apex of the responsibility pyramid. This focus also essential in order to bring fundamental change in the government’s approach to regulation, taking back the regulatory authority that has been ceded to the corporations. To do so would be an important step in helping to bring justice for the people of Lac-Mégantic.

Introduction

En d'autres mots, je vous accuse, Monsieur le Premier Ministre, vous et votre gouvernement, d'être au sommet de la pyramide des responsabilités de la tragédie survenue à Lac-Mégantic.¹

—Rodolphe De Koninck, Université de Montréal

AT 11:30 P.M., Friday, July 5, 2013, a train with five locomotives hauling 72 tanker cars loaded with crude oil from the Bakken shale oil field in North Dakota, parked on the main line on a steep slope, unlocked and unattended, in the town of Nantes, Quebec. Owned and operated by a U.S. company — Montreal, Maine and Atlantic Railway (MMA) — it was bound for the Irving Oil refinery in Saint John, New Brunswick. The engineer activated the braking system, setting a number of handbrakes on the locomotive and tanker cars and, in accordance with company protocol, left the train unattended with one locomotive engine idling to maintain the brake line air pressure. Having finished a 12-hour shift, he then retired to a nearby hotel. The train was scheduled to remain unattended until his replacement took over early the next morning.

Shortly after he left, a town resident alerted local firefighters to a fire on the idling locomotive. The firefighters extinguished the fire and after talking with two MMA track maintenance employees who arrived at the scene, shut down the locomotive and left. It is not known what communication

transpired between MMA officials, including the dispatcher at the MMA office in Farnham, Quebec, and the firefighters.

Just before 1:00 a.m. the train started to move and began to roll towards the town of Lac-Mégantic 11 km away. The driverless cargo quickly gathered speed, reaching 101 km/h as it approached a sharp curve in the heart of town. There it derailed, spilling 6.5 million litres of crude oil of a total cargo of 7.2 million litres, causing a massive fire with multiple explosions that raged through the night and into the morning.

Forty-seven people perished in the inferno, many of them young people celebrating at a popular nightspot located near the tracks. The downtown core was obliterated — over 30 buildings destroyed, 80 businesses disrupted, one-third of the residents evacuated. Wave upon wave of oil spilled out contaminating the soil and surrounding waterways. It was one of the worst rail disasters in Canadian history.

How could such a catastrophic accident occur? Was it the result of an improbable sequence of events? An “accident” that occurred in spite of a sound regulatory system and corporations committed to public safety? Was it the result of a unique combination of human errors?

Or was Lac-Mégantic the consequence of a flawed regulatory regime — one that in practice allows companies to make their own judgments about the balance between cost considerations and the risks to public safety? Was it also exacerbated by the enormous increase in the transportation of oil by rail over the last five years, with the people of Lac-Mégantic paying the terrible price?

Was MMA a rogue company — a bad apple that ignored its own directives? Or was it simply doing what was expected of it by shareholders, and allowed to do under the regulatory framework? How far does the chain of responsibility extend beyond the company — to major players in the rail and oil industries, and to government policy makers?

The backdrop to Lac-Mégantic is the wild-west boom in the production of unconventional oil — shale oil from North Dakota and bitumen from Alberta — and the rush to get it to market. The lack of pipeline capacity left rail as the main alternative for the oil companies to get their product to eastern refineries and coastal ports for shipping to overseas markets. Close to 275,000 barrels per day are now being transported by rail in Canada, from almost nothing five years ago.

Great for its bottom line, the rail industry has met this spectacular surge in demand, for the most part, using tanker cars that were not built for carrying hazardous materials.

Federal Deregulation

CANADIANS TRUST THAT their government will take *reasonable* measures to protect them, their workplaces, communities and their environment. Like the young people partying at the Musi-café in Lac-Mégantic, we are all in a way, oblivious to the risks that government imposes on us. When an accident like Lac-Mégantic occurs, people's confidence in the system is shaken. They ask, for example, how is allowing a one-person crew on such a train a *reasonable* precaution?

Surveys have shown that the public does not trust corporations to regulate themselves given their profit-seeking mandate.² They understand that corporate accountability is, first and foremost, to their shareholders, not to society as a whole. Most Canadians view governments as responsible for regulating corporations. They assume that protecting their health and safety is the prime consideration of the regulatory system.

Over the last 30 years, Canadian businesses have crusaded for large-scale reduction or elimination of regulations, which they mostly see as a cost and a burden. They have been aided and abetted by legions of lobbyists and allied think tanks. By and large, they have been successful.

Corporations, as institutions that exist to maximize shareholder value, have a built-in compulsion to externalize their costs, i.e., have others pay for them. Whether through dumping products into the environment or through increasing safety risks, the cost is borne by reduced protection for the public. Regulations, properly designed and enforced, have the potential to force corporations to internalize these costs to some extent, and thereby

reduce the risk of their causing harm to individuals, communities and the environment.³ To the extent that regulations add to costs, they will be resisted by corporations.

Governments have devolved more and more power to companies to make their own judgments about risk to public safety. The prevailing narrative is that governments should balance public safety with ensuring that regulations do as little as possible to hinder corporations' essential role as job and wealth creators in the modern Canadian economy.

Conservative ideology holds that deregulation lowers costs to business, which increase profits, which lead to more investment, which in turn leads to faster economic growth and increased job creation. There are no credible studies that demonstrate empirically the existence of such a causal chain. It is simply declared as fact by free market doctrine.⁴

On the contrary, there is much evidence that deregulation, including in the railway industry, has resulted in job loss as corporations have taken advantage of deregulation opportunities to downsize and/or shift jobs offshore. Profits have increased, but business investment in relation to the economy has stagnated.

While not proving a negative causal relationship between deregulation and jobs and growth, it is worth noting that during the years that deregulation has been ascendant, 1981–2012, the average annual growth rate was 2.5%, and average annual unemployment was 8.6%. In the pre-deregulation period, 1950–80, economic growth averaged 4.9% per year and unemployment averaged 5.2%.⁵

The previous Liberal government masked its deregulation initiative as “smart regulation” to allay any concerns among the public that deregulation might be compromising its health and safety. The current Conservative government – much less concerned with such nuance – has portrayed its deregulation initiative as, “cutting job-killing, wealth-destroying red tape.”

Deregulation has been accompanied by a major shift in regulatory principles, notably away from the precautionary principle – which says that, in the face of scientific uncertainty, we should err on the side of caution and give primacy to the public interest regarding health, safety, and the environment – to a risk management, or risk assessment, approach which gives equal (or greater) weight to business cost competitiveness considerations. Although federal regulatory policy still pays lip service to precautionary principles, they have been progressively compromised and diluted.⁶

In this cozier relationship between government and corporations, citizens are in effect being asked (actually, they are *not* being asked) to bear

greater risks — risks of which they are largely unaware, and have little or no role in establishing — so that corporations can increase their profits.

The latest manifestation of this shift is the Harper government's regulatory policy, the *Cabinet Directive on Regulatory Management* (CDRM), which took effect in late 2012, incorporating the recommendations of its 2011 Red Tape Reduction Commission.⁷ It replaced the 2007 *Cabinet Directive on Streamlining Regulation*, which in turn replaced the Liberals' 2005 *Government Directive on Regulation*.

The Harper government's laissez faire attitude to regulation is embodied in the very term "red tape," which implies that regulations are a burden on business rather than a legal mechanism to protect the public interest. The Red Tape Reduction Commission focused its efforts, not on promoting public health, safety and the environment, but on regulatory irritants that business identifies "as impeding innovation and competitiveness, particularly for small business.... And to prevent red tape 'creep' over time."

The CDRM imposes a number of hurdles that must be overcome in order for a department to pass a new regulation. A rigorous regulatory development process is essential. However, a process that hinders the introduction of regulations on grounds that they would undermine cost competitiveness, domestically and internationally, is highly problematic.

It requires that benefits outweigh costs, that supposedly adverse impacts on the capacity of the economy to generate growth and employment are minimized, and that no unnecessary regulatory "burden" is imposed. Regulators depend largely on companies to evaluate costs and benefits of specific regulations — companies that are predisposed to exaggerate the costs and downplay the benefits. Thus, assessments of costs tend to be narrowly focused on costs to business. Other potential costs such as those associated with a major accident, or the potential long-term damage to the overall economy, are not factored in.

The CDRM, consistent with business preference, promotes non-regulatory options such as voluntary codes or "self-regulation." It expects departments to use non-regulatory measures wherever possible.

Departments and agencies are expected to: "Limit the cumulative administrative burden and impose the least possible cost on Canadians and businesses that is necessary to achieve the intended policy objectives."

In a major departure from previous regulatory policy, the CDRM imposes a "one-for-one" rule. Departments and agencies must "[control] the number of regulations by repealing at least one existing regulation every time a new one that imposes an administrative burden (i.e., red tape) on business

is introduced” and “[ensure] that new administrative burden on business caused by a regulatory change [‘IN’] is offset by an equal decrease in administrative burden on business from the existing stock of regulations [‘OUT’].”

Departments are required to prepare a “Triage Statement” in consultation with the Regulatory Affairs Secretariat of the Treasury Board to determine its expected impact. A key part of this is the “Regulatory Impact Statement,” in which departments undertake to calculate costs and benefits. They must quantify the dollar costs to government, consumers and business, and compare these costs against the (monetized) benefits, which are much more difficult to measure. Although other potentially adverse (and unquantifiable) impacts on the economy, health and safety, vulnerable groups, etc., need to be identified, in practice, regulatory impact is determined solely by anticipated costs — most of them short-term costs to business. This too, is a major departure from past regulatory policy directives.

Departments must ensure that proposed regulations minimize regulatory differences with other jurisdictions — domestic and international. They must be consistent with NAFTA, the WTO and other international trade and investment agreements. Domestically, they must also comply with the *Agreement on Internal Trade*.

Finally, departments must quantify the administrative burden of the proposed regulation, and specify the offsetting decrease in administrative burden as well as at least one existing regulation that will be eliminated (the one-for-one rule).

The Regulatory Affairs Secretariat has a mandate to challenge departments that propose new regulations not consistent with the Directive. However, while key regulatory proposals must receive approval from the Privy Council Office, in contrast to the previous government, and in keeping with the Prime Minister’s penchant for control, regulatory proposals will not generally move forward without the nod from the Prime Minister’s Office.

Over and above these obstacles to regulatory development established by the CDRM, is the erosion of the system’s enforcement capacity — its failure to effectively monitor compliance and ensure that oversight bodies have sufficient resources.

It should also be noted that the Conservative government has adopted the practice of “burying” regulatory changes within massive budget implementation bills, obscuring parliamentary and public scrutiny of specific regulatory changes. For example, the implementation bill associated with the 2012 budget (C-38) weakened or eliminated a large number of environmental laws and regulations. These massive bills have received only cur-

sory attention by the Finance Committee instead of detailed evaluation by the appropriate committee, with expert review, stakeholder input and public consultation. Placing regulations in an omnibus bill has allowed the government to avoid having to post these changes in the *Canada Gazette*, which requires a period of public comment and consultation. It also circumvents the normal process of internal review by the relevant department and the Treasury Board.

Canada-U.S. Regulatory Harmonization

Concurrent with domestic deregulation, Canada-U.S. regulatory harmonization initiatives have been underway since NAFTA (1994). They gained major impetus after 9/11 as enhanced U.S. border security measures threatened to disrupt the North American economic integration process.

Responding to intense business pressure, the three NAFTA governments signed the *Security and Prosperity Partnership (SPP)*, an overarching framework to manage continental economic integration in the face of U.S. security priorities. A comprehensive “regulatory cooperation” initiative was an integral part of the SPP, with business having a prominent place at the table. The term cooperation, it should be noted, in practice means Canada harmonizing with, or adopting U.S. regulations — the dominant partner in this initiative. In some areas U.S. regulations are more stringent, but in others U.S. standards are lower than their Canadian counterparts. The SPP initiative was not generally about harmonizing upward, but rather downward to the lowest common denominator.⁸ Though the SPP was disbanded by the Obama administration, bilateral regulatory harmonization initiatives continued.

In February 2011, the two governments set up the Regulatory Cooperation Council (RCC). The Council represents a reestablishment of the SPP regulatory initiative under another name, and again with a strong business presence. In June 2011, the Council announced its terms of reference stipulating that its purpose was to enhance “regulatory alignment” between the countries; and in December, the joint regulatory cooperation action plan was released.

The RCC working group on rail safety, dangerous goods and intelligent transportation systems released its rail safety standards work plan on April 2, 2012. Among its short-term objectives were to consider the “harmonization of regulatory requirements wherever practicable.”

In September 2012, a memorandum of understanding was signed between Transport Canada and the U.S. Department of Transportation on the safe transport of dangerous goods. The memorandum states in part:

to promote harmonization in planning and developing these regulations and standards, the participants intend to seek early and frequent coordination and discussion on issues involving areas of mutual interest and concern. *They may jointly identify and eliminate existing gaps and harmonize differences in regulations wherever possible.* (italics added)

The *Cabinet Directive on Regulatory Management* and the bilateral regulatory harmonization initiative raise a number of questions of relevance to Lac-Mégantic. MMA, almost alone among Canadian freight railways, operates with one-person crews. Was the exemption from the two-person crew requirement the result of bilateral regulatory harmonization pressure to adopt the lower U.S. standard — which does not require two-person crews — since the railway crosses national borders?

Railway Deregulation

TRANSPORT CANADA IS charged with regulating the bulk of Canada's railways primarily through the *Railway Safety Act* and the *Transportation of Dangerous Goods Act*.

Over the last 25 years, it has devolved increasing responsibility for, and management of, safety rules to the companies themselves, with Transport Canada approving the rules that the companies put in place and monitoring companies' self-inspection and self-regulation systems.

Changes to the *Railway Safety Act* enabled Canada's two major carriers, the newly privatized CN, and CP, to sell off sections of track that were not profitable, in an era when railways were struggling financially. CP sold off its line through Lac-Mégantic in 1995.

The 1996 *Canada Transportation Act* spurred a major restructuring of large carriers, leading to a proliferation of small railways. Meanwhile, CN and CP were slashing their payrolls. CN, for example, cut its workforce in half between 1993 and 1999, from 34,000 to 17,000.

Today, Canadian National Railway and Canadian Pacific Railway, the Class 1 companies, operate about three-quarters of Canada's rail network. Thirty-seven short-line and regional railways account for most of the remainder, operating as feeders, providing the Class 1 railways with about one-quarter of their traffic.

These smaller railways have been aggressive cost cutters in a segment of the business with low profit margins. Cost-competitive considerations were clearly behind the push to reduce the number of personnel operating

and guarding the trains. On the other hand, they also enabled communities and shippers to maintain access to railways that had been abandoned by the majors.

In 2002, the U.S. company Rail World Inc. bought the bankrupt and decrepit Bangor and Aroostook Railroad and combined it with three other railways to form Montreal, Maine and Atlantic (MMA), as a Class 2 regional carrier. Rail World is a privately held company that bills itself as specializing in “privatizations and restructurings.” Its controlling shareholder is Ed Burkhardt.

MMA embarked on a drastic cost-cutting exercise, laying off staff and cutting wages, in an effort to turn a profit. It also received some federal and provincial subsidies to upgrade the track.⁹ Nevertheless, MMA has been a poor performer compared to other short-line railways in terms of maintenance and operation.¹⁰ And it has struggled financially for years due largely to the decline of the forest products industry. Only recently, in 2012, did the surge in transportation of oil begin to turn around its fortunes.

Amendments to the *Railway Safety Act* (RSA) gave companies the authority to implement safety management systems (SMS). They permitted companies to develop their own rules and standards with respect to track maintenance, equipment, safety and security, training, etc. These amendments, which came into force in 2001, allow companies to make their own judgments about the balance between cost considerations and the risks to public safety. While these rules are subject to the Transport Canada’s approval, and have been referred to as co-regulation between government and industry, they are in effect self-regulation — a major surrender of Transport Canada’s regulatory authority.

The shift to “safety management systems” for rail (as well as other federally regulated sectors) meant that while federal inspectors audit and approve the SMS submitted by companies, they carry out far fewer on-site inspections to ensure compliance with their SMS plans. The result is a reduction in their knowledge of what companies are actually doing and thereby increasing the risk of unsafe practices not being identified.¹¹

Following a rash of deadly rail accidents, a 2007 report by the Canada Safety Council called the deregulation of Canada’s rail system an accident waiting to happen. The move to deregulation, it stated, “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.¹²

William Brehl, president of the Teamsters Rail Conference, credits the Harper government with returning some of the independent policing powers to Transport Canada, but remained critical of the self-regulation approach “because a railway’s compliance is restricted to its own filings and infrequent surprise inspections from Transport Canada.”¹³

Christine Collins, president of the Union of Canadian Transport Employees, which represents federal transportation inspectors, says rail Safety Management Systems are superior to those in place for air and marine safety, where audits have tended to replace actual inspections. She says, especially in light of Lac-Mégantic, attention should focus on the woeful lack of inspectors in Transport Canada’s Dangerous Goods Division to handle the massive increase in oil transported by rail.¹⁴

Lawyer and former railway engineer, Wayne Benedict, urged government to restore rail safety regulatory power to Transport Canada in a 2007 *Transportation Law Journal* article.¹⁵ 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. (164)

Benedict ended with a warning:

What the future holds for Canada’s railway safety regulatory system is difficult to discern. However, if the trend toward increased accident rates continues unchecked it is only a matter of time before Canadians are confronted with another Mississauga, Hinton, Edson, *or worse*. (164–65) (italics added).

Today, Benedict is clear that there have been no significant improvements since 2007. His argument against the fundamental flaw in the regulatory system — industry self-regulation, or vesting profit-seeking corporations with power over the public interest — still stands.¹⁶ Safety costs money.

Warnings by Public Safety Bodies

In investigations dating back to the mid-1990s, the Transportation Safety Board (TSB) criticized as too vague Transport Canada regulations intended to ensure handbrakes are properly secured to prevent unwanted movement

of trains. Its rules say only “sufficient” handbrakes must be applied. They do not, for example, indicate the number of handbrakes necessary to hold a given train tonnage on various grades — an assessment left up to the company and, ultimately, the operating employee. Until Lac-Mégantic, Transport Canada declined to address TSB’s findings.¹⁷

A Transportation Safety Board report on a derailment similar to Lac-Mégantic on the Quebec, North Shore and Labrador (QNS&L) railway in 2011, raised questions about the effectiveness of handbrakes and the potential for future runaway trains. In that case, the engineer had applied handbrakes to 35 of 112 rail cars parked on a 1.3% grade, which failed to keep the train from rolling. In the Lac-Mégantic case, the engineer purportedly applied brakes to just 11 cars in a 72-car train parked on a 1.2% grade, though its very heavy load made it equivalent to the 112-car runaway train. Transport Canada did not confirm whether any action was taken after the QNS&L runaway: that is, whether a regulation was changed or a process reviewed.¹⁸

Transport Canada rejected a 2002 Transportation Safety Board recommendation to order the locking of unattended locomotives, as “unwarranted.”¹⁹ Thus, until Lac-Mégantic it was not against regulations to leave a train carrying dangerous goods unlocked and unattended, in this case beside a major highway.

A June 2013 Transportation Safety Board report on a 2012 derailment in Burlington made several recommendations, including that Transport Canada mandate railroads to bring in fail-safe methods for stopping trains automatically — so-called Positive Train Control (PTC) — as is being implemented in the U.S.²⁰ The Canadian Railway Association argued that PTC is not necessary in Canada since the existing system works well, citing its excellent safety record. CN, which has had to install PTC on its U.S. tracks, expressed concern about the significant additional costs.²¹ Transport Canada has not yet made a decision on this recommendation.

Regulators in both Canada and the U.S. have known since the early 1990s that DOT-111 (the Canadian equivalent is CTC-111A) tanker cars have a propensity to puncture during derailments.²² The DOT-111 is an all-purpose tanker car with a single steel shell and was not designed for hazardous products.

The Transportation Safety Board reported that this type of tanker car had a flawed design and had a “high incidence of tank integrity failure” during accidents, which it documented repeatedly in a number of accidents.²³

After investigating a 2004 derailment and tanker car fracturing, TSB recommended that all future cars be built to a higher standard.²⁴ A 2009 TSB re-

port raise concerns again about the safety of these tanker cars for the transportation of hazardous products.

In 2011, the Association of American Railroads put forward design changes intended to improve the safety of the new DOT-111 tanker cars. These design modifications have also been adopted by Transport Canada for new cars manufactured and used in Canada. However, in both countries, there is no requirement to modify existing tanker cars, which is highly problematic since their average life span is 40 years.²⁵

A year later, the chair of the U.S. National Transportation Safety Board warned federal regulators that DOT-111 cars had “a high incidence of tank failures during accidents.”²⁶ Finally, on September 5, 2013, the U.S. Pipeline and Hazardous Materials Safety Administration, after repeated warnings from safety regulators, called for rules requiring reinforced DOT-111 cars for the transportation of hazardous materials, including crude oil. It is expected that these rules will take a long time to be implemented.

Despite the staggering increase in oil transportation by rail, industry executives have been lulled into downplaying the risks of a rail oil spill compared to a pipeline spill. CN CEO Claude Mongeau told a Wall Street analysts briefing: “If you have one railcar 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 accident was not on his radar.²⁷

According to Transport Canada’s *Railway Car Inspection & Safety Rules*, only newly-built tanker cars (since October 2011) are required to meet the revised standard for CTC-111A cars. There is no requirement that existing cars be upgraded.²⁸

Calls for their replacement have been resisted by the companies, which claim it would be too expensive and downplay the safety risks. Internal briefing notes prepared for the Transport Minister in 2011 warned the government that the industry lobby against stricter safety regulations was “counter to the public’s expectation for strict regulation and zero risk tolerance.”²⁹

Despite the longstanding warnings from the Transportation Safety Board, Transport Canada appears not to have pressured the rail companies to replace the CTC-111A tanker cars. A May 28, 2012 internal Transport Canada memo, obtained by Greenpeace Canada, said the department had “identified no major safety concerns with the increased oil by rail capacity in Canada, nor with the safety of tank cars that are designed, maintained, qualified and used according to Canadian and U.S. standards and regulations....

Indeed, Canada and the U.S. work collaboratively to ensure the harmonization of rail safety requirements.”³⁰

In a post-Lac-Mégantic news conference, Transport Canada officials said they were still reviewing regulations related to the use of the CTC-111A tanker cars in response to a TSB recommendation.³¹ Currently, 80% of the tanker fleet in Canada and two-thirds of the U.S. fleet carrying oil are the older unreinforced DOT-111/CTC-111A model. In the case of the Lac-Mégantic derailment, all of the cars were the older model.³²

In December 2011, the Environmental Commissioner in the Auditor General’s office, Scott Vaughan, issued a scathing report on Transport Canada’s inability to adequately enforce its rules to protect the public against the threat from major spills of dangerous goods, including oil.

Among the report’s findings:³³

- Transport Canada had given only temporary or interim approval for only half of the Emergency Response Assistance Plans (ERAPs) that are required to be submitted by the regulated companies. Thus, dangerous products have been shipped for years without Transport Canada doing a detailed verification of companies’ emergency response plans.
- Transport Canada does not have a risk-based planning process or an accurate inventory of companies posing the greatest risk in transporting dangerous goods.
- Transport Canada “lacks a consistent approach to planning and implementing compliance activities. As a consequence, it cannot ensure that sites are inspected according to the highest risk.”
- In cases examined by the audit where inspections found non-compliance with federal regulations for transporting dangerous goods, almost three-quarters showed incomplete, or no evidence, of corrective action having been taken.
- A previous Transport Canada internal audit (2006) had identified similar flaws in Transport Canada’s management practices, many of which had still not been remedied.

Curiously, the Transport Committee did not invite Mr. Vaughn to testify about his report. He appeared briefly before the Environment Committee because his report also dealt with National Energy Board and Environment Canada.

In response to a question from Liberal MP Kirsty Duncan, who asked whether the health and safety of Canadians and the environment were being suitably protected, Vaughn replied that enforcement of existing regulations was a serious problem:

I think broadly that Canadians would be better protected if the regulations on the books were actively enforced. They're there for a reason; they're there to protect human health and environmental quality. As I said, we found significant issues in all three entities.

Transport Canada promised to implement the Commissioner's recommendations, including to improve the tracking of hazardous products and follow up on safety risks identified by inspectors. But by April 2013 it still had not fully complied with key recommendations of the Auditor General, including on roles and responsibilities regarding inspections, and ensuring compliance from industry. In fact, the compliance deadline was extended to April 2014.³⁴

Before Lac Mégantic there were no regulations preventing trains from being left unattended on the main track with locomotives idling. In Canada, railways must operate with at least two-person crews. The Transport Minister, Denis Lebel, granted only two exemptions to this rule: Quebec, North Shore and Labrador railway (QNS&L), which is an isolated and thinly populated track; and Montreal Maine and Atlantic (MMA).

The exemption was granted over the strong objections of the United Steel Workers, the union representing the workers. This follows a pattern wherein the government routinely sides with management on regulatory issues.

Railway unions in both Canada and the U.S. have long maintained that, because of the complexity of the operation, at least two persons are needed. They argue that fatigue is a huge problem for engineers and at least two are required to check each other's work. On a heavily loaded train on a steep grade, setting enough handbrakes to prevent the train from moving is an arduous task for one person. Asked why Burkhardt was operating trains with a one-person crew, the response from the U.S. union was, "because he can."

The company filed a safety management system plan, including general and special operating instructions (which Transport Canada approved), although it has not been made public. It is not known whether Transport Canada audited MMA's plan to verify that its operations complied with the safety procedures outlined in its SMS? Nor is it known whether the company itself filed the audit required as proof that it was complying with the rules.

The reasons for the exemption have not been made public, although because MMA had apparently installed a remote control system as a substitute for a second crew member, this might have influenced the Transport Minister's decision.³⁵ The exemption was granted, notwithstanding the fact that according to the Transportation Safety Board, MMA reported 129 accidents since 2003, including 14 main track derailments. Statistics from the U.S. Federal Railroad Administration figures show that between 2003 and 2011, MMA's accident rate was more than double or triple the national average for the rail industry.³⁶

Although it will not be known until the investigations are completed, it does not appear on the surface that MMA breached Transport Canada's hard regulations. Nor is it known whether the company breached its own SMS plan. Transport Canada rules (often criticized by the TSB) on braking requirements (CROB Rule 112) are vague, stating only that they must be "sufficient" to prevent the train from moving.³⁷ Prior to the accident it had no rules preventing companies from leaving unattended trains on the main track, including those carrying dangerous goods, or regarding the use of old CTC-111A tanker cars. And, as noted, it gained an exemption from two-person crews. As with other railway companies in Canada, MMA was left largely on its own to regulate its activity.

The industry — through the powerful Railway Association of Canada and direct lobbying by the companies themselves — vigorously resists regulations where, in its view, costs outweigh benefits. It deploys substantial resources to advance its interests. Companies are extremely reluctant to discuss their lobbying activities publicly. However, they are obliged to reveal to the Commissioner of Lobbying the nature of their lobbying activities.

For example, 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 Railway Association of Canada made 68 communications with public office holders, of which 32 were with Transport Canada.³⁸

The record shows that the Railway Association added a new subject to its lobbying efforts 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 assure them that current regulations for dangerous goods transportation are sufficient." It is

interesting that in post-accident disclosures the lobby group removed its claim that current regulations were sufficient.³⁹

CP Rail representatives, the lobby records reveal, met with 30 MPs and bureaucrats during the past year — including advisors to the Transport Minister — on among other subjects: “Participating in the review of Rail Service in Canada by Transport Canada with regard to...Transport Canada’s review of freight rail service in Canada, advocating for no additional regulation.”

These lobbying activities do not include communications by industry representatives on the government’s rail advisory groups, nor those that take place in the preparation and presentation of their safety management systems. For example, there was no recorded lobbying activity by MMA during the period since 2009. However, there would have been contact with Transport Canada regarding the company’s safety management system and its request for exemption in 2012.

A related problem that has plagued regulatory agencies and one that should be asked in the case of Transport Canada: has it been subject to “regulatory capture?” This is a situation where regulators tend to identify with the interests and preferred policy outcomes of the regulated industry, rather than their obligation to regulate in the public interest. This may be compounded by regulators’ awareness of their political masters’ bias in siding with industry. The cozy relationship between the regulator and regulated industry is exacerbated by the fact that managers are often recruited from industry.

CAW (now Unifor) national rail representative, Brian Stevens, who is on the Transport Minister’s rail safety advisory committee, identifies as key problems, too many exemptions from the rules granted by the Minister, not enough inspectors, and lack of clarity as to their mandate. He said federal rail inspectors don’t engage in the kind of aggressive blitz inspections that provincial regulators mount....⁴⁰ However, Sam Berrada, manager of safety and regulatory affairs for CN, 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.”⁴¹

Transport Canada currently has 101 rail inspectors in the Rail Safety Division. There are an additional 35 inspectors in the Transportation of Dangerous Goods division, which covers all modes of transport including rail.⁴² The government did not increase the number of rail inspectors. More specifically, it did not increase the number of inspectors in the Transportation of Dangerous Goods division to handle the enormous increase in oil-by-

rail traffic over the last five years. While in 2009 there was one inspector for every 14 tankcarloads of crude oil, by 2013 there was only one inspector for every 4,000 tank carloads.⁴³

In its austerity drive to eliminate the deficit, the Harper government has not spared rail safety. Between 2010–11 and 2013–14 — a period of enormous expansion in the volume of oil-by-rail traffic — it slashed the rail safety budget by 19%. Transport Canada also shaved the very small Transportation of Dangerous Goods budget over those four years, from \$14 million to \$13 million. Moreover, in spite of expectations that oil transport by rail will continue to grow rapidly, it plans to freeze the budgets for both divisions until at least 2015–16.⁴⁴

The Canadian Transportation Agency (CTA) is the government body that oversees railway insurance coverage.⁴⁵ It determines whether a railway carries adequate third-party liability insurance. The process whereby the CTA determines whether a company has adequate insurance is opaque. The CTA does not make public any details of railway companies' insurance policies.

Under federal regulations, there is no set minimum or maximum amount of insurance coverage required for railway operators. Companies are assessed on a case-by-case basis. The CTA considers the products carried, the company's ability to pay insurance premiums, and comparable railway coverage.⁴⁶ It also determines coverage based on a risk assessment carried out by the insurance company and the railway company. It is not known if these assessments had been adjusted to take account of the enormous increase in oil-by-rail traffic.

MMA's insurance coverage was approved by the Canadian Transportation Agency when the railroad first began to operate in Canada in 2002. The company has provided the CTA with certificates of insurance every year since, including in 2013. The obvious question is: why did the CTA judge MMA's \$25-million insurance policy, which could only cover a minor accident, sufficient to cover its civil responsibilities in an accident?

Expansion of Oil Transport by Rail: A Wild West Boom

The Lac-Mégantic disaster is linked directly to the North American boom in the production of unconventional oil, whether from Alberta bitumen — production of which increased from 0.8 million barrels per day in 2003 to 1.8 million barrels per day in 2012, and is projected to rise to 4.9 million barrels per day by 2020 — or American shale oil.⁴⁷

Technological advancements in hydraulic fracturing (fracking) have triggered spectacular increases in the production of shale oil. North Dakota's Bakken field, the largest of its kind, has made North Dakota the second-largest oil-producing state after Texas. North Dakota produces 790,000 barrels per day, up from 150,000 barrels per day in 2008. Due to the lack of pipeline capacity, 75% of its oil is moved by rail.

The shale oil revolution has driven up overall U.S. production from 5 million barrels per day in 2008 to 6.4 million barrels per day in 2012. The International Energy Agency predicts that shale oil could drive up total U.S. crude oil production to 11.1 million barrels per day by 2020, overtaking Russia and Saudi Arabia as the world's largest producer.⁴⁸

The vast increase in supply of unconventional oil combined with a shortage of pipeline capacity – in part because of regulatory delays in the construction of new pipelines – explains the astounding growth of transport by rail from almost nothing five years ago.

Shipments of oil by rail – so-called rolling pipelines – are expected to reach 800,000 barrels per day in the U.S. by the end of 2013, up tenfold since August 2011. U.S. rail carloads of crude oil have grown from 9,500 in 2008 to almost 178,000 in the first half of 2013 alone.

The rise in Canadian shipments of oil by rail has been equally astonishing. They have increased from 500 tank carloads in 2009 to an estimated 140,000 carloads by the end of 2013, according to the Railway Association of Canada. According to figures provided by National Resources Canada officials, approximately 272,000 barrels per day of oil travelled by rail in Canada in the first four months of 2013 – up 77% from the same period in 2012.⁴⁹ This is equivalent to 8% of total Canadian oil production in 2012.

North American rail giants CN and CP have both been riding the oil wave. Transportation of petroleum products generated almost \$100 million in revenue for CN in the Q2, 2013, a 150% increase over the previous year. It is driving overall profit growth for the company – up 14% in the Q2, 2013 to \$717 million.

CP's profits more than doubled to \$252 million during the same period. Crude oil shipments are by far the fastest growing product carried by both companies. CP estimates that it will haul 70,000 carloads in 2013, up from 13,000 in 2012. CN anticipates carrying 60,000 carloads in 2013, double the 30,000 hauled last year.⁵⁰

Rail is no longer seen as a stop-gap measure, but an increasingly cost-competitive option for shipping oil because of shorter contract commitments,

the lower up-front infrastructure costs, faster shipping times, and because it requires less diluent than for bitumen shipped by pipeline.⁵¹

Canadian companies are investing heavily in tanker cars, loading terminals, and other infrastructure in the Alberta bitumen sands to enhance the transfer of crude oil to trains. These investments could boost shipments by rail of Alberta bitumen by 425,000 barrels per day by the end of 2014 from the current level of 130,000 barrels per day.⁵²

Irving Oil, whose Saint John refinery is the largest in Canada, has also been a beneficiary of the unconventional oil boom. It has dramatically increased delivery of the significantly cheaper Bakken crude, which now accounts for about one-quarter of its refining capacity. Oil has been transported to Saint John either via CP Rail and MMA through Maine, or via CN's all-Canadian route.

Oil spills, while more frequent than pipeline spills, have tended to be of much smaller volume. Over the past decade (2002–12), estimated rail spillage for crude oil was 0.38 gallons spilled per million barrels moved, compared with the pipeline spill rate of 0.88.⁵³ Over the last decade, accidents in Canada where dangerous goods spilled have been very few (around two per year) and have remained stable or even declined slightly since 2007, with none involving crude oil — a trend touted by the industry.⁵⁴

However, these soothing statistics don't account for a Lac-Mégantic — a rare event with catastrophic consequences. Faulty risk management models, which exclude the possibility of such events, have lulled the industry and regulators into a sense of complacency even as skyrocketing oil shipments increased the likelihood of such an accident happening. This is not unlike the 2008 global financial collapse, a so-called black swan event, which was not foreseen by the consensus of experts and an industry blinded by greed and its defective risk models.⁵⁵

The Accident's Aftermath

The Community's Response

July 6, 2013 was night of horror, but also a night of heroics as residents risked their lives to wake up their neighbours and help others flee. No one in that small town was spared the shock and grief of losing sons and daughters, mothers and fathers, brothers and sisters, aunts, uncles and cousins, friends and lovers.

There has been an outpouring of solidarity and financial support from across Quebec and Canada for the victims' families, for people left jobless and homeless by the devastation. Individuals, unions, businesses and municipalities donated funds, artists held benefit concerts, Les Canadiens played a benefit hockey game and later conducted a practice at the Lac-Mégantic sports arena, people bicycled and swam to raise money, libraries donated books to rebuild the town library.

The Lac-Mégantic mayor, Collette Roy-Laroche — ex-primary school teacher and grandmother — embodied the community's resilience and courage to heal a shattered community, shattered lives, shattered dreams. She worked tirelessly — consoling families, organizing food and shelter, receiving visitors, dealing with police and investigators, and speaking to the media throngs.

People mourned but they also resolved to move on. The Musi-café, where so many died, re-opened in a tent at the beginning of August, a symbol of

the collective desire to regain a sense of normalcy in the wake of catastrophe. The town has begun the process of planning a new vision of Lac-Mégantic, one that cannot bring back what was, but one that builds on its rich historic past — a new main street, a memorial park to honour the victims, a new courthouse, a new library, a new commercial core.

Collective grief, however, is mixed with anger at those responsible. The people of Lac-Mégantic want answers to the cause of the tragedy that ravaged their community. They want to know who is to blame, and they want them to be held accountable. They need answers to achieve even a modicum of closure.

Although the object of their rage was directed in the first instance at the callous and inept MMA CEO, Ed Burkhardt, they understand that the chain of responsibility extends well beyond.⁵⁶ It reaches up to the corporate executives whose cost-cutting decisions trumped public safety and to federal policy makers, who allowed companies to gamble with their safety.

An opinion piece that appeared as a “J’accuse” letter to Prime Minister Harper in *Le Devoir* on July 25 expressed the sentiments of many. Its author, Rodolfe DeKoninck, wrote: “In other words, I accuse you, Mr. Prime Minister, you and your government, of being at the top of the pyramid of responsibility for the tragedy that occurred at Lac-Mégantic.”

A class-action lawsuit was launched in Quebec Superior Court by the owners of the Musi-café, Yannick Gagne and Guy Ouellet. Both lost partners and friends in the fire. Thirty companies and individuals were named in the suit, including MMA CEO Ed Burkhardt, its board of directors and the engineer, World Fuel Services, companies that owned the tanker cars, CP Rail, and Irving Oil.

A number of wrongful death lawsuits (requesting trial-by-jury) have been filed in a court in Chicago, the headquarters of Rail World Inc., on behalf of the families of the victims. The defendants are largely the same companies named in the Canadian class-action suit. The families are also seeking a committee to represent their claims in the bankruptcy proceedings.

The Company Response

As noted, the deadly cargo originated in the Bakken shale oilfield of North Dakota. Canadian oil giant Irving, ordered the fateful oil shipment from the Fortune 500 fuel logistics company, World Fuel Services. World Fuel bought the oil through its subsidiaries Western Petroleum Co and Dakota

Plains Holdings. World Fuel leased the DOT-111 tanker cars from companies — Union Car, GE Rail Car and Trinity Industries — to transport the oil. All 72 cars were the older unreinforced DOT-111 model. CP Rail was contracted to haul the cargo from North Dakota across the continent to Montreal. CP in turn contracted with MMA to haul the oil cargo from Montreal to Maine. From there, the NB and Maine Railways, owned by Irving, was scheduled to take it to its final destination in Saint John.

The response of the rail companies and the industry to the Lac-Mégantic disaster is following a familiar pattern, evident in previous accidents such as the Ocean Ranger, Deep Water Horizon and Westray disasters: expressions of contrition and sympathy with the families and community; statements that they are reviewing their safety procedures while assuring the public that they are of the highest order; commitment to comply with Transport Canada's emergency safety directives; denials of legal liability for the cleanup cost or for wrongful death lawsuits; and insistence that the continued growth of oil transport by rail is inevitable and essential to the country's economic well-being.⁵⁷

Corporate buck passing began immediately after the accident. MMA CEO Ed Burkhardt conceded the company's partial responsibility, but was quick to shift the blame for the derailment to the MMA engineer, alleging that he had not in fact applied a sufficient number of the train's handbrakes. Tom Harding — described by his colleagues as an extremely competent engineer — claimed he applied 11 handbrakes, consistent with the company's protocol. Burkhardt also suggested that the firefighters, who had been called to put out a fire, were at fault for shutting down the engine, which disabled the brakes.

Burkhardt subsequently blamed employees for not shutting off the engine as soon as smoke from a broken engine piston was detected in order to prevent the fire starting. The engineer had observed smoke throughout the journey, which he reported to the dispatcher on arrival at Nantes. From the tapes the engineer's lawyer listened to, the issue of shutting down the train never came up in conversations with the dispatcher.⁵⁸ (The Transportation Safety Board has not confirmed Burkhardt's version of the cause.)

Burkhardt declined to take responsibility for his company's insistence on using one-person crews, for the company practice of using the passing siding at Nantes as a parking lot for empty cars, or for leaving trains with idling motors unattended.⁵⁹ If it had been stationed on the siding with a derail installed, the accident would not have happened.⁶⁰ Transport Canada knew, or should have known, of these practices.

The Quebec Ministry of the Environment issued a directive ordering the companies responsible — including MMA, World Fuel Services, and CP Rail — to pay for the environmental cleanup costs. All have refused.

MMA stopped paying the cleanup bill, saying it had run out of cash, and shifted the responsibility to its insurer, XL Group plc, to make the payments from its \$25-million insurance policy. XL in turn is resisting the payout as it tries to demonstrate negligence on the company's part.

Though the *Quebec Environment Quality Act* stipulates that owners or custodians of hazardous materials are liable for cleanup costs, World Fuel Services, the owner of the oil cargo, refused to comply with the legal order, denying any liability and indicating that MME had already admitted responsibility. CP Rail, which had contracted to transport the oil, also denied any liability and is also refusing to comply with the Quebec government cleanup order.

CP subsequently issued a letter to the Canadian Transportation Agency requesting approval to cease transferring its cargo to MMA citing, “serious and alarming risks associated with MM&A’s ongoing operations” because of its aging rail infrastructure. The letter said: “The issue before the agency is not one that is rooted in contractual or commercial law, but is instead one that is hearted in the protection of the safety and well-being of all Canadians.”⁶¹ It’s curious that these concerns were not voiced before the accident. In an ironic twist, the CTA refused its request and ordered the company to resume shipping via MMA.

Canadian Pacific’s CEO Hunter Harrison pointed the finger at the chemical and petroleum companies, which own the vast majority of tanker cars, for stonewalling reform about the need for safer cars. Complaining that the multiple investigations underway were taking too long, he also cast blame on Transport Canada for forcing, by law, railways to transport any cargo (including oil) that meets Transport Canada’s guidelines, and blamed the regulator for not requiring sturdier rail cars.⁶² The chemical industry denies that it is dragging its feet, blaming delays by car designers and developers, and the added cost of the upgraded cars.

A month after the deadly derailment, MMA was granted bankruptcy protection in both the U.S. and Canada. The court documents reveal that its estimated potential liability for the accident of \$200 million is far greater than the company’s Canadian assets (\$18 million) and its insurance coverage (\$25 million).⁶³

Burkhardt announced in September that he was selling MMA and that the sale process was underway, supervised by bankruptcy court officials in

both countries. Several potential buyers have come forward, reportedly including Irving, which has had discussions with the Quebec and federal governments.⁶⁴ Proceeds from the sale will be used to repay MMA's creditors. What, if anything, remains will go to compensating the victims' families.

Officials at CN and CP Rail as well as the industry lobby, the Railway Association of Canada, have offered their sympathies to the people of Lac-Mégantic, and to assist in the investigation. They have assured the public that they are reviewing their safety procedures even though they are very high, and have immediately complied with Transport Canada's emergency directives. Reflecting the post-accident learning opportunity narrative, Railway Association CEO Michael Bourque said: "We are committed to learning from this accident and, if required, acting to prevent similar circumstances from occurring again."⁶⁵

While they conclude that it was an unfortunate accident, company officials deny responsibility for the disaster. As noted earlier, the industry has had a longstanding resistance to new regulations.

Both rail and petroleum industry officials are adamant that, despite the accident, continued growth in transportation of oil by rail is inevitable. Once seen as a temporary measure to bridge the pipeline gap, rail is now viewed as an increasingly competitive alternative — a permanent part of the North American oil transportation infrastructure. Currently very small, the share of transport by rail is predicted to rise to 25% of total oil transportation over the next decade.

Perhaps Lac-Mégantic will be different, but if past practice is any indication, the likelihood of a criminal prosecution succeeding is very small. In civil cases the usual scenario is that the plaintiffs reach a settlement with the companies involved — i.e., partial compensation for the fact that neither governments nor corporations are held to account for the tragedy inflicted on the people of Lac-Mégantic.

The Government Response

In the immediate aftermath, both Prime Minister Harper and Quebec Premier Marois visited the town expressing sympathy and solidarity with the people of Lac-Mégantic. Each government has pledged \$60 million to assist with the cleanup and rebuilding of the community. However, these costs could escalate to \$500 million or more, and the Quebec government is pushing Ottawa to commit to sharing these costs.

Both the Sureté de Quebec (SQ) and the federal Transportation Safety Board were on the scene immediately after the crash. The SQ has been conducting an extensive criminal investigation. At the time of writing, the SQ is reportedly close to laying criminal charges.

The Prime Minister assured the community that the Transportation Safety Board was conducting a full investigation to determine the cause of the accident, and that the government would act on its recommendations to prevent a repeat of the tragedy. The TSB is not mandated to apportion blame or hold any party to account. It can only make recommendations.⁶⁶ Nor can it address the broader question of the government's approach to regulation.

Transport Canada has two investigations underway to determine whether the *Railway Safety Act* or the *Transportation of Dangerous Goods Act* were violated.

It reportedly entered MMA offices in Farnham, Quebec accompanied by the RCMP.

Less than two weeks after the accident, the TSB, confirming that an “insufficient” number of brakes were applied to keep the train from moving, advised the federal government of a number of urgent safety concerns. At the July 18, 2013 press conference, TSB manager Ed Belkaloul reiterated the TSB's longstanding complaint that Transport Canada had not defined the term “sufficient” in its rule regarding the application of braking systems to prevent movement.

Transport Canada responded immediately, issuing the following emergency directives:

- All railways must ensure at least two qualified locomotive operators are assigned to any train transporting dangerous goods on a main track or a siding;
- No locomotive attached to one or more loaded tanker cars transporting dangerous goods is to be left unattended on a main track;
- All unattended controlling locomotives on the main track or sidings must be locked to prevent unauthorized entry;
- Directional controls, or reversers, are to be removed from all unattended locomotives, preventing them from moving forward or backward on the main track or sidings;

- Locomotives left unattended for more than one hour on the main track or siding must comply with company special instructions on handbrakes;
- Locomotives left for more than an hour must have the automatic brake in “full service” position; and
- The independent brake must be fully applied to any locomotive attached to one or more cars left for one hour or less on the main track or sidings.

Transport Canada also committed to adding more inspectors to ensure enforcement of these new regulations.

At an emergency meeting in July of the Commons Transport Committee, NDP member Olivia Chow requested that the Committee hold hearings immediately on the deficiencies in Transport Canada’s policies and regulatory practices, and produce a report by October. However, the Conservative majority supported by the Liberals, rejected her request as premature while the TSB investigation was in progress.

Less than a month after the derailment, the U.S. Federal Railroad Administration (FRA) announced six new emergency measures. It required crews to report to dispatchers on the number handbrakes applied. It prohibited leaving trains unattended on the main track or siding without prior authorization, and spelled out the process for securing unattended trains. Although it strongly recommended two-person crews, the FRA did not make them compulsory.

The Transportation Safety Board also revealed that it was examining the composition of the spilled light crude oil to determine why it was so explosive, and dispatched investigators to the source of the oil in North Dakota. Bakken light crude has been known to regulators to contain hydrogen sulphide, making it extremely volatile. Several months earlier Enbridge had alerted the U.S. Federal Energy Regulatory Commission (FERC) that it would not carry Bakken oil with extremely high levels of hydrogen sulphide in its pipelines, arguing that it posed a serious health and safety risk to its workers.

In a July 29, 2013 letter to the American Petroleum Institute, the U.S. Federal Railroad Administration expressed concern over the possibility that chemical additives injected into this oil as part of the fracking process have been corroding the interior core of the tanker cars. The letter also said it “had specific concerns about the proper classification of crude oil shipped by rail...[and] the subsequent determination and selection of the

proper tanker car packaging used for transporting crude oil” as well as that its contents were not being properly classified on the shipping manifest.⁶⁷

As U.S. safety officials began making unannounced spot checks of crude oil loading sites (known as Bakken blitzes) in late August, it was revealed that months before Lac-Mégantic they had been worried about the volatility of Bakken light crude.

On September 11, 2013, the Transportation Safety Board released a letter to Transport Canada and the U.S. Pipelines and Hazardous Material Safety Administration announcing preliminary results of its North Dakota investigation. It found that the crude on the Lac-Mégantic train was more volatile than indicated by its classification on the train’s manifest. Class 3 flammable liquids are classified into three packing groups (PG). The Lac-Mégantic train shipment was classified as the least volatile (PG 3) but should have been classified as higher volatility (PG 2)—equivalent to gasoline.

Its survey of 10 suppliers in the area found that they labeled their crude differently, with some labeling it as PG 1 (the most volatile) while others labeled it as PG 2, or PG 3 (the least volatile). While shippers who moved the crude by truck to the loading terminal in New Town, North Dakota, all gave it a PG 1 high-volatility classification, when it was loaded onto the train the shipper classified the cargo as PG 3, the least volatile crude.

At the press conference, Transportation Safety Board investigators said the importer, Irving Oil, had the ultimate responsibility to ensure the product was properly classified. In an email statement to the media, Transport Minister Lisa Raitt wrote: “If a company does not properly classify its goods it can be prosecuted under the *Transportation of Dangerous Goods Act*.”⁶⁸

The TSB letter specified that even if it *had* been properly classified, it would still have been allowed to be transported in the DOT-111 tanker cars, questioning once again the safety of the cars. Lead investigator Donald Ross added that there are no rules for special handling of flammable liquids transported by rail as there are for air and sea. Presumably, the manifest filed with the Canadian Border Security Agency (CBSA) when the train crossed the border into Canada, had the same PG 3 classification as it did when it left New Town, although the letter did not specify this.⁶⁹

Interviewed by CBC Radio’s *The House*, Transport Minister Lisa Raitt said her officials were considering a review of the process of labeling dangerous goods transported by rail, as recommended by the TSB.

Raitt did not answer interviewer Chris Hall’s question whether she thought there were enough inspectors in the system. She also said that she did not know if Transport Canada’s dangerous goods inspectors did their own in-

spection of the fateful cargo at any point on its journey – and that finding the answer was part of the investigation. When asked whether the old DOT-111s should be allowed to transport dangerous goods in the future, she restated the current policy that only new cars must be constructed to the upgraded standard.

On October 17, Transport Canada issued an emergency order requiring companies to conduct new classification tests on all oil they transport and report their findings to the Dangerous Goods Directorate. Until these tests are done, all crude oil must be classified as Class 3 PG 1, the highest volatility liquid.

The Canadian Transportation Agency (CTA) announced in August that it was revoking MMA's license to operate, citing concerns about company's lack of sufficient funds to cover both the Lac-Mégantic claims and obtain coverage for the equivalent of two additional accident claims, which is the standard for maintaining the necessary operating permissions. It subsequently reversed its decision, allowing MMA to operate until October 1, 2013, and then granted a further extension to February 1, 2014.

It also announced that it would hold consultations this fall as part of its review of the adequacy of third-party liability coverage, including for catastrophic events, for both large and smaller railways. The government signalled in its throne speech that it would be increasing insurance coverage.

In August, the Canadian Senate Standing Committee on Energy, the Environment and Natural Resources, tabled its report, *Moving Energy Safely*, examining all forms of transporting hydrocarbons, including by rail. The Lac-Mégantic disaster has given this report – nine months in preparation – a prominence and urgency unusual for Senate reports.

Among its recommendations, the Committee urged the government to move immediately to implement the 2011 Auditor General's recommendations, which Transport Canada has dragged its heels on fully implementing. It also said that the government should, in cooperation with the United States, consider accelerating the phase-out of the old DOT-111 (CTC-111A) tanker cars.

Finally, it called on the government to convene "an arms-length review of the country's railway regulatory framework, standards and industry practices." (35) (The Quebec Liberal leader, Phillippe Couillard, has also called for an expert panel involving all levels of government to examine Lac-Mégantic and the future of rail transport in Quebec.)

Noting that Lac-Mégantic has eroded public confidence in the capacity of the regulatory system to protect public safety and the environment, the Committee accepted as fact that rail transport of oil would continue to grow

as Canada seeks to expand export markets for its oil. Consistent with the assertions of the rail and petroleum industry, the Committee made no suggestion that the pace of production and rail transportation should be slowed, at least until improvements in rail safety were completed.

The day after the Senate report, the Federation of Canadian Municipalities' National Municipal Rail Safety Working Group called for "swift, concrete federal action on rail safety...to address the rail safety concerns of municipalities..." It wants Transport Canada to immediately address deficiencies identified by the TSB, proper equipment and training for first responders, assurances that any new costs will not be downloaded to cities and towns, that companies be required to carry more accident insurance, and assurances that municipalities will be included in any discussions between the industry and the federal government. The Working Group is also demanding full disclosure from Transport Canada of what dangerous goods are passing through their communities.

The governors of six New England states and the premiers of five eastern Canadian provinces meeting in La Malbaie, Quebec adopted a resolution calling on Prime Minister Harper and President Obama to immediately implement stricter rail safety measures for the transportation of dangerous goods.

The standard response from the Transport Minister's office to questions about the accident is that it will wait until the TSB investigation and Transport Canada's own investigations have been completed before commenting or taking further action. That could be a long time.

Transportation Safety Board investigations often take a year or more. Team leader Donald Ross told a July 9, 2013 press conference that the process could take years. Moreover, recommendations on rail safety procedures take five years to develop new rules and standards, according to Transport Canada officials,⁷⁰ which then take more time to implement.

As memory and media coverage of the accident recede, it will be easier for the government to set in motion processes to manage the crisis of confidence that this disaster has engendered in the public mind. Time will help the government as it seeks to revise the narrative and obscure the root cause of the accident — namely, its failure to properly regulate the industry.⁷¹

On the other hand, the spotlight may persist making it more difficult to reframe the narrative. In their effort to get bitumen to ports for shipment to overseas markets, the petroleum industry and the federal government are running into major problems that could block or delay their pipeline proposals — south on the Keystone XL pipeline, west on Northern Gateway and Kinder Morgan pipelines, east on Enbridge's Line 9 Reversal and Trans Can-

ada's Energy East pipelines. Several proposals are in the works to expand oil transport by rail. Transport Canada, Natural Resources Canada and Chinese-owned Nexen are discussing with CN the option of transporting bitumen west by rail to Prince Rupert. CN says it could move a volume equivalent to the Northern Gateway pipeline.

Regional rail carrier, Omnitrax, is proposing to ship oil north through Manitoba to Churchill on Hudson's Bay. The Manitoba government has said it cannot support the proposal as it stands. The line, which runs through the boreal forest and tundra, has also drawn concern from First Nations in the region.⁷²

Lac-Mégantic has heightened the public's awareness of the dangers of huge shipments of crude oil passing through their communities whether by pipeline or by rail. As the Lac-Mégantic investigations drag on without resolution, and without concrete steps to reform the regulatory framework, it may be more difficult for the Harper government to convince Canadians that it is genuinely committed to protecting the public interest in its rush to bring growing oil sands production to overseas markets.

Conclusion

AT THE OUTSET of this paper I posed several basic questions about the Lac-Mégantic accident — questions that have shaped my analysis throughout. It is still early days in the aftermath of the tragedy and one cannot make conclusive judgments. However, in my view, the evidence points to a fundamentally flawed regulatory system, cost-cutting corporate behaviour that jeopardized public safety and the environment, and responsibility extending to the highest levels of corporate management and government policy making. Was MMA a rogue company? Until new evidence comes to light, it seems MMA, an admittedly poor performer compared to other companies, simply took advantage of the freedom it was granted by the regulatory system.⁷³

At this stage, there are many more nagging questions than forthright answers, including:

- Why did the Transport Minister grant MMA — a company with a troubling safety record — an exemption from the two-person crew regulation, one of only two exemptions granted to a federally regulated freight-carrying railway?
- Did the regulatory harmonization processes in place between Canada and the U.S. play a role in granting the MMA exemption, since the company operates on both sides of the border and the American regulator does not require two-person crews?

- What is contained in the MMA's safety management system? Did Transport Canada audit the company's SMS to verify that its operations complied with the safety procedures as outlined? Did the company itself file the audit required to prove it was complying with the rules? What were its general operating instructions and special instructions, and how do they compare with those of other rail companies, notably CN and CP?
- Why did the Canadian Transportation Agency determine that MMA had sufficient insurance to cover its civil liabilities?
- Why did Transport Canada not respond to repeated concerns by the Transportation Safety Board to change its nebulous rules regarding the application of braking systems and make them more specific and detailed?
- Why has Transport Canada not acceded to the Transportation Safety Board's recommendation that railroads bring in fail-safe methods for stopping trains automatically — so-called Positive Train Control (PTC) — as is being done in the U.S.?
- Why were there no rules in place *prior* to the accident prohibiting unattended and unlocked trains on the main track? Why did Transport Canada's emergency directives come only after the accident?
- Did Transport Canada know about, and approve of, MMA's practice of using its passing sidings as a parking lot for unused cars?
- Why did Transport Canada not respond to repeated safety concerns regarding the use of the old CTC-111A tanker cars to transport crude oil, which comprise 80% of the Canadian tanker fleet and the entire cargo that MMA was hauling?
- Why were Transport Canada and the industry so complacent about warnings of the safety problems associated with tanker cars, especially in light of the spectacular increase in the transport of oil by rail?
- What was the role of the industry lobby in resisting the development of regulations regarding braking, unattended trains, tank car safety, etc.?
- In developing regulations, what stakeholders is Transport Canada consulting, and what voices are being heard?

- Why has Transport Canada vested so much power in the industry — with its knee-jerk aversion to regulations — to effectively set its own rules and standards, trading off public safety against company costs?
- Why did Transport Canada not strengthen enforcement of its dangerous goods regulatory system to handle the spectacular increase of oil transport by rail that has occurred over the last five years? Are its Rail Safety Directorate and the Transport of Dangerous Goods Directorate adequately resourced?
- Why did Transport Canada keep pushing back the timeline for full implementation of the Auditor General’s report recommendations, most recently to 2014?
- Did Transport Canada propose new regulations only to have them blocked higher up, possibly by the PMO?
- Why, under the federal the Cabinet Directive on Regulatory Management, is regulatory impact (the measure of whether or not a regulation is accepted), which is supposed to be assessed according to a variety of factors, in practice determined solely by anticipated, mostly short-term costs, to business — a departure from past regulatory policy ?
- Why did the CDRM bring in a one-for-one rule — also a major departure from past regulatory policy — requiring departments to repeal at least one existing regulation every time a new one that imposes an administrative burden (i.e., red tape) on business is introduced?
- Are existing investigations broad enough to fully determine the causes of, and responsibility for, the Lac-Mégantic tragedy? Or is a judicial review required?

Although each industrial disaster is different, there are common patterns. Professor Susan Dodd’s, *The Ocean Ranger: Remaking the Promise of Oil*, provides valuable insights into what to expect in the aftermath of Lac-Mégantic — from corporations, governments, the media, the courts, the families, the community, unions and the general public. Dodd, who teaches at the University of King’s College in Halifax, lost her brother on the Ocean Ranger offshore oil drilling rig, which sank in a storm off the coast of Newfoundland on February 14–15, 1982, killing all 84 men on board. The Ocean

Ranger is a story of how, in the rush to develop oil resources, corporations were left free to gamble with people's lives.

In the aftermath of Lac-Mégantic, a process that will drag on for years — investigations, lawsuits, trials, public inquiries, expert panels, parliamentary committees — is already beginning to play out in ways documented by Dodd.

The trauma of the disaster produces a crisis of confidence (in Dodd's words, a "legitimation crisis") shattering the public's trust in the government to take reasonable measures to protect their community. The government and the corporations invoke what she calls "socio-political processes" to manage the crisis and, over time, reframe the post-disaster version of events as one of a lack of technical know-how and a learning opportunity. Ultimately, they seek to restore faith in government's capacity to protect communities and obscure the root cause of the accident — namely, the failure of the federal government to protect its citizens against corporate predation.⁷⁴

Lac-Mégantic, like the Ocean Ranger, is also related to the promise of oil — to the future of Canada as an "energy superpower." According to this narrative, the 47 citizens who perished in Lac-Mégantic, although never described in these terms, are unfortunate casualties of a project vital to the country's economic well-being. While government and industry will learn from this accident, these are unstoppable economic forces against which ordinary citizens are powerless.

Corporations have a singular obligation, law professor Joel Bakan argues, "to promote their own and their owners' interests. They have no capacity, and their executives no authority, to act out of a genuine sense of responsibility to society, to avoid causing harm to people and the environment, or to work to advance the public good in ways that are unrelated to their own self interest."⁷⁵

Thus, as the Ocean Ranger and Lac-Mégantic demonstrate, it is naive to expect corporations to self-regulate in a way that would compromise their bottom line. In both cases companies took the freedom from regulation as an opportunity to cut costs.

Dodd describes how the myth of corporate self-regulation is exposed every time corporate risk-taking hurts a community. In the aftermath of the disaster another narrative, the myth of technological learning, will resurrect the self-regulation myth. It re-establishes the false supposition that corporations are, by design, good citizens — rather than institutions deliberately structured to enhance shareholder value above all else — who have the expertise and should be left to their own devices to manage their operations safely.

We still don't know whether charges will be laid or not; whether against individuals or corporations; whether against breaches of the criminal code or regulatory breaches. If Lac-Mégantic unfolds like the Ocean Ranger and similar accidents, the likelihood is slim that there will be a successful criminal prosecution — however justified it may be.⁷⁶ A regulatory prosecution is more likely.

Civil actions, which are underway in both countries, are more likely to succeed in U.S. courts, where claims of insolvency are not favourably viewed. They will be met with corporate resistance and offers of settlement to the victims' families and the communities. They will do this sooner rather than later to foreclose the possibility of new evidence. They will attempt to take advantage of the families' desire for closure to “get on with their lives.”

This is an important avenue of redress according to Dodd, especially if victims' families and communities perceive that other avenues of justice — either through criminal action or through public inquiries, etc. — are likely to be frustrated. However, settlements are a highly inadequate means of holding those responsible to account.

In my view, the challenge in preventing these scenarios from playing out as they often have in the past, is to keep the spotlight on these root causes — corporate negligence and regulatory failure — in order to hold to account those responsible, including those at the apex of the responsibility pyramid. This focus is also essential to prompt fundamental change in the government's approach to regulation — i.e., taking back the regulatory authority that it ceded to corporations. To do so would be an important step in bringing justice to the people of Lac-Mégantic.

Notes

1 This opinion piece entitled, “Explosion A Lac-Mégantic: j'accuse!” appeared in *Le Devoir*, July 25, 2013. The author is Canada Research Chair in Asian Studies at Université de Montréal.

2 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 behaviour 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.” (Pal, Leslie and Judith Maxwell. 2004. *Assessing the Public Interest in the 21st Century: A Framework*. Paper prepared for the External Advisory Committee on Smart Regulation Canadian Policy Research Networks. January).

3 Bakan, Joel. *The Corporation*, Penguin, 2007, 150. See also Glassbeek, Harry. *The Presumed Innocence of Capitalism and Lac-Mégantic*. Global Research, August 4, 2013.

4 In the 2005 *World Competitiveness Report*, the term “regulation” is mentioned just once and in the context of regulations spurring competitiveness, not detracting from it: “There is significant consensus [from the Executive Opinion Survey]... that complying with environmental standards improves long-term competitiveness...” (xxiv).

5 That causal relationship is complex. It involves a set of neoliberal policies, interacting with technological developments. These policies — including deregulation, privatization, removal of restrictions on corporate mobility, cuts to public services and taxes, etc. — have been mutually reinforcing and their effect has been cumulative over time. They have produced major structural changes, notably in the relationship between workers and corporations, governments and corporations, governments and their citizens. I would argue that herein lies the answer to wage stagnation or decline, to growing inequality, erosion of universal social programs, higher unemployment, growth of low-wage precarious work and economic growth overall.

6 *Framework for the Application of Precaution in Science-based Decision Making about Risk* — Privy Council Office: <http://www.pco-bcp.gc.ca/docs/information/publications/precaution/Precaution-eng.pdf>

7 <http://www.tbs-sct.gc.ca/rtrap-parfa/cdrm-dcgr/cdrm-dcgrtb-eng.asp>

8 See Campbell, Bruce and Lee, Marc: *Putting Canadians At Risk: How the federal government's deregulation agenda threatens health and environmental standards*, Canadian Centre for Policy Alternatives, September, 2006; and Campbell, Bruce, *More Than Jellybeans: The SPP Regulatory Framework Agreement and Its Impact on Chemicals Regulation*, Canadian Centre for Policy Alternatives, September, 2007.

9 These pale in comparison with public investment in roads, which unlike rail, are seen as public infrastructure.

10 Correspondence with rail expert Harry Gow.

11 Mark S. Winfield, *The incubation of the Lac-Mégantic disaster*, Ottawa Citizen, July 25, 2013

12 CTV News, website, May 20, 2007. However, in a July 2013 commentary, the Canada Safety Council noted that subsequent improvements by both Transport Canada and the industry had resulted in a major drop in main track derailments and a decline in incidents involving the discharge of dangerous goods. (*Despite Lac-Mégantic tragedy, rail safety is improving*, Canada Safety Council, Vol. LVIII No.3, July 2013.)

13 Op-ed *Toronto Star*, August 1, 2013.

14 Correspondence with the author

15 Benedict, E. Wayne: "Canada's Railway Safety Regulatory Regime: Past, Present and Future," *Transportation Law Journal*, University of Denver, vol. 34, No. 2, Summer, 2007.

16 Interview with Wayne Benedict.

17 Transportation Safety Board advisory letter July 18, 2013. The letter says in part: "CROR Rule 112 is not specific enough in that it does not indicate the number of hand brakes necessary to hold a given train tonnage on various grades and it continues to be left up to the operating employee to determine the number of hand brakes to apply. Furthermore, it has been demonstrated that the push-pull test is not always a good indicator of whether an adequate number of hand brakes have been applied and not all handbrakes are effective even when properly applied. Considering all these risks, Transport Canada may wish to review CROR Rule 112 and all related railway special instructions to ensure that equipment and trains left unattended are properly secured in order to prevent unintended movements."

18 Relayed in email correspondence from George Iny based on a *Journal de Montreal* article, July 18 2013.

19 TSB Rail Safety Advisory Letter, 617-08/13.

20 The U.S. is moving ahead with intelligent train systems, notably Positive Train Control (PTC), which it has mandated for all railways to put in place by the end of 2015. The U.S. rail industry is pushing to extend the deadline to 2020. It is being resisted altogether by the Canadian industry because of the cost implications.

21 Dixon, G. "Tories take a wait-and-see approach as TSB probe calls for rail safety overhaul," *Globe and Mail*, June 11, 2012.

22 These designations refer to the railcar construction standards established by both regulatory bodies.

23 See for example, TSB Railway Investigation Report, No. R95D0016 December 16, 1997; TSB Railway Investigation Report R94T0029, January 30, 1994

24 *Financial Times*, July 12, 2013.

25 The benefits of these are not realized unless the entire train is composed of these new cars.

26 Cited Bloomberg, August 11, 2013.

27 Cited *National Geographic*, Daily News, “Oil Train Tragedy in Canada Spotlights Rising Crude Transport by Rail,” July 13, 2013.

28 Senate Committee on Energy, Environment and Natural Resources, *Moving Energy Safely*, August 2013, 39.

29 Mike De Souza, “Transport Canada safety record back under microscope following Ottawa Crash,” Postmedia, September 18, 2013.

30 Cited Canadian Press, “Rail safety advocates urge new rules for high-risk cargo,” July 29, 2013. See also: <http://www.greenpeace.org/canada/en/Blog/transport-canada-downplayed-risks-of-shipping/blog/46050/>

31 Mike De Souza, “Transport regulations Canada vows to fix inadequate oversight of dangerous goods transportation in 2011,” Postmedia, July 9, 2013.

32 CBC News: *Safety rules lag as oil transport by train rises*, posted July 9, 2013. Whether up-graded tanker cars would have been sufficient to withstand the impact of the crash, awaits determination by the TSB investigation. However, informed opinion from within the railway industry suggests that the forces (speed, weight, inertia) involved in the Lac-Mégantic derailment were much greater than the potential resistance of even reinforced new-standard tanker cars. (Correspondence with Harry Gow)

33 http://www.oag-bvg.gc.ca/internet/english/parl_cesd_201112_01_e_36029.html#hd3a

34 Transport Canada set out the following plan with respect to the transportation of dangerous goods in its 2012–13 plans and priorities document: “establish and implement an action plan that addresses the Commissioner of the Environment and Sustainable Development Audit of Transportation of Dangerous Products to: strengthen compliance monitoring guidance, develop tools and processes, document follow-up procedures for inspectors, support the review of transport of dangerous goods inspection activities and introduce a quality assurance program; review the Emergency Response Assistance plan program’s policies and procedures for approvals of plans and develop enhanced guidance material for remedial measure specialists; and implement a national risk assessment tool that will serve as the basis for risk-based inspection planning for inspectors.” (38–39.) There was no explicit reference to the audit in the Department’s 2013–14 P&P document.

35 The trend to remote control or “intelligent train systems” such as Positive Train Control (PTC) has advanced quite far in the U.S., but Canadian railways have resisted the trend.

36 *Toronto Star*, “Lac-Mégantic: Railway’s history of cost-cutting,” August 8, 2013.

37 <http://www.bst-tsb.gc.ca/eng/medias-media/sur-safe/letter/rail/2013/r13d0054/r13d0054-617-09-13.asp>. It has been suggested that the vagueness of the rule on braking allows Transport Canada to shift blame onto the company in the case of a brake failure, as occurred at Lac-Mégantic. The company then typically blames the employee for his poor judgment in applying “insufficient” brakes. Wayne Benedict suggests it would be useful to compare MMA’s general and special instructions regarding applying brakes for specific grades along the route, and regarding the use of sidings, with those of CN and CP.

38 Thanks to Richard Girard for helping me navigate the Lobby Registry.

39 See Lobby Register: <https://oclcal.gc.ca/app/secure/orl/lrrs/do/vwRg?cno=14798®Id=761815#regStart>. Also cited in “Railways have been lobbying against more stringent safety regulations,” Linda Gyulai, *The Montreal Gazette*, July 13, 2013. 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.” <https://ocl-cal.gc.ca/app/secure/orl/lrrs/do/vwRg?cno=14798®Id=764948>

40 “Lac-Mégantic Raises Red Flag on Ottawa’s Safety Record,” *Toronto Star*, July 12, 2013. Jonathan Migneault, “Tragedy spurs rail reality check,” *Sudbury Star*, August 17, 2013.

41 Testimony, May 23, 2013, cited, Senate Committee on Energy, Environment and Natural Resources, *Moving Energy Safely*, August 2013, 38.

42 CBC report, July 9, 2013.

43 Calculations based on Railway Association of Canada estimates of the growth of crude oil tank carloads from 2009 to 2013 – from 500 to 140,000.

44 Transport Canada, Report on Plans and Priorities, 2012–13 and 2013–14. Although there was a bump-up in forecast spending in 2012–13, according to the Parliamentary Budget Office, actual spending on rail safety in 2012–13 was only 64% of that reported in government budget documents (PBO integrated monitoring database 2012–13). Transport Canada will cut staff levels in the rail safety division from 208 to 204 full-time employees (FTE) from 2012–13 to 2015–16, and increase staff slightly in the transportation of dangerous goods section, from 124 to 128 full-time employees during this period.

45 The Agency is an independent administrative body of the Government of Canada. The Agency’s role in the economic regulation of the rail industry includes: determining railway costs for regulatory purposes; processing applications, including certificates of fitness; approvals for railway line construction; determining regulated railway inter-switching rates; the net salvage value of rail lines, and the railway revenue cap for the movement of western grain.

46 Cousineau, Sophie, “MM&A’s bankruptcy reveals glaring gaps in rail insurance rules,” *Globe and Mail*, August 9, 2013.

47 Total crude oil production in 2012 was 3.2 million barrels per day, according to the Canadian Association of Petroleum Producers. There is no sign of the unconventional oil boom slowing down in the near, or even distant, future. Despite the planetary threat from carbon emissions and the urgent need to transition away from fossil fuels, the International Energy Agency projects that investments in unconventional petroleum development (bitumen, shale, arctic and deep offshore) of almost \$23 trillion over the next 25 years, more than triple the projected investment in renewable energy. (Michael Klare, Tom Dispatch, August 8, 2013.)

48 Cited *National Geographic*, Daily News, “U.S. to Overtake Saudi Arabia, Russia as World’s Top Energy Producer,” November, 12, 2012.

49 Sun News, September 23rd, 2013

50 Petroleum News Bakken, July 13, 2013.

51 Carey, Julie M., “Rail emerging as long-term North American crude option,” *Oil and Gas Journal*, August 5, 2013

52 Jeff Lewis, *New surge in oil-by-rail boom as pipeline uncertainty takes hold*, Financial post, September, 20, 2013

53 Railway Association of Canada, Commentary

54 TSB figures, cited in Senate Report, August 2013 (36)

- 55** The term was coined by Nicholas Taleb in his book, *The Black Swan*, Random House, 2007.
- 56** That Burkhardt is a useful villain, should not divert attention away from industry and government responsibility
- 57** This pattern is documented in Susan Dodd, *The Ocean Ranger: Remaking the Promise of Oil*, Fernwood, 2012 (7).
- 58** *Globe and Mail*, September 13, 2013.
- 59** Furthermore, it appears that MMA locomotives did not have “Hot Start” or similar equipment on its locomotives to eliminate continuous idling, through periodic start-ups to charge batteries and train lines (air pressure) for brakes. When the required recharges (and motor-warming) are done, the device shuts down the motor until the next start-up triggered by low diesel engine temperature. (Email correspondence with Harry Gow.)
- 60** Interview with Wayne Benedict.
- 61** Cited *Petroleum News Bakken*, September 1, 2013.
- 62** Jacquie McNish and Justin Giovanetti: “CP’s Harrison warns Lac-Mégantic tragedy could happen again without tougher safety rules,” *Globe and Mail*, September 18, 2013, and Canadian Press, September 18, 2013.
- 63** Lawyers handling the class-action suit called it an attempt by parent company Rail World and its controlling shareholder Ed Burkhardt to limit their liability by claiming they cannot be held responsible for the actions of a subsidiary. MMA’s U.S. assets are assessed at \$50 million to \$100 million.
- 64** Barrie McKenna in an August 18 *Globe and Mail* article speculates about Irving’s ulterior motive in buying the railroad. “Rescuing MM&A from its current predicament would curry favour with both the federal and Quebec governments. Ottawa and Quebec hold the key to a much more important prize for Irving – the \$12-billion Energy East pipeline project.”
- 65** Op. cit. Gyulai, *Montreal Gazette*, July 13, 2013.
- 66** Transport Canada has a statutory obligation to respond to TSB recommendations.
- 67** Federal Railroad Administration letter to the American Petroleum Institute, July 29, 2013; cited Bloomberg, August 13, 2013.
- 68** Allan Woods, “Lac-Mégantic: Train carried mishandled oil, safety board says,” *Toronto Star*, September 11, 2013.
- 69** CBSA does not independently verify if the contents listed on the train’s logbook match what’s actually inside each tanker. It is left to the company to self-regulate. The seal denoting the nature of hazardous goods being transported is not placed on the train by a federal inspector but rather by a company employee.
- 70** Cited Mike De Souza, *Transport Canada vowed to fix inadequate oversight of dangerous goods transportation in 2011*, Postmedia News July 9, 2013
- 71** Dodd, Susan; *The Ocean Ranger: Remaking the Promise of Oil*, Fernwood Publishing, 2012.
- 72** “After Lac-Mégantic disaster, rail company’s plan to ship oil through Hudson Bay deemed too risky,” Canadian Press, September 20, 2013.
- 73** This point was made by Wayne Benedict in his interview with me.
- 74** An anonymous comment posted to a CBC story immediately after Lac-Mégantic captures the essence of how events typically unfold in the aftermath a major disaster:

- “1. Emergency incident occurs, people die, media interest intense, public shocked.
2. Government and industry wring their hands and say all the right things. PR experts earn big fees.
3. Everyone promises to get to the bottom of it and make sure it never happens again.
4. Media interest decreases, public acceptance of incident builds.
5. Compensation cheques are written, it’s the cost of doing business and cheaper than real safety programs and emergency planning, insurance kicks in, profits reduced for short-term.
6. Media interest becomes shallow, public generally forgets.
7. Government and industry say little.
8. Business and profits as usual.
9. Annual memorials with decreasing media coverage as time passes.”

75 Op. cit. Bakan, J. 2004, 109.

76 A case in point: On May 14, 2003, a trestle bridge collapsed under the weight of a CN freight train near McBride B.C., killing both crew members. Both men had been disciplined earlier for refusing to take another train on the same bridge, claiming it was unsafe. The Transportation Safety Board concluded that the accident was caused by bridge failure. The company was criminally charged with failing to ensure the bridge was structurally sound and failing to protect the health and safety of the employees. CN pleaded guilty to the first charge and was fined \$75,000. It got off on the second charge because due to conflicting expert testimony and destruction of evidence in the accident, the Crown could not prove guilt beyond a reasonable doubt.



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