***Comments on UTC Regulatory Docket TR-151079***

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***Recommendations:***

1. ***UTS should rely on the most similar longstanding federal regulatory precedents in chemical accident prevention, to objectively define “reasonable worst case oil spill” for railroads based on the maximum capacity of the longest CBR unit train [not half a train] that travels in the state [whether mainline or short line, as the Lac Mḗgantic railroad the MM&A was the latter], given the eventual possible origins and destination of CBR trains into and through the state.***
2. ***UTC should clarify that, pursuant to the language of HB 1449, the proposed rule is designed to cover both oil “spills” and [other kinds of harmful] “discharges” from potential CBR derailment-caused releases [fire, explosion, toxic gas cloud, as seen in the FEMA NJ exercise].***
3. ***Before finalizing this rulemaking, UTC should make a direct request [backing up a longstanding but ignored similar request by the WA Fire Chiefs association][1] to each of the state’s CBR carrier railroads to provide their own up to now secretly held information most relevant to any state assessment of CBR risks: their railroad’s worst case release scenarios, catastrophic insurance coverage documents, comprehensive emergency response [ER] plans, and routing analyses and route selection documents. These should include railroad documents both for the urban routes [pursuant to federal Public Law 110-53, Section 1559] and to the routing decisions statewide.***
4. Introduction: As an expert on rail safety policy, with thirty years of rail hazmat policy experience, I would like to comment on one of the main questions UTC is grappling with in this Crude By Rail [CBR]-focused rulemaking:

***What is a “reasonable worst case spill of crude oil” for a crude oil train, for the regulatory purposes of this rulemaking?*** [as specified in legislative language on financial responsibility in the newly enacted WA state law HB 1449, Section 10]

The UTC’s definition of this term and its critical usage in the proposed regulations, after scaling down experienced North American CBR releases, as involving one-half of a railroad’s largest CBR train observed previously as traveling in WA state, **understates the common public understanding, the longstanding federal regulatory definitions, and a respectably safety conservative calculation of a worst case hazardous chemical release as the largest release that could happen in a serious CBR release.**

It certainly also does not reflect consideration, as many commenters would suggest, of **the potentially impacted locale of a serious CBR release,** e.g., in dense cities or sensitive environmental areas, **which is a practice even the most prominent railroad industry risk assessment experts have used in testifying before the US Surfact Transportation Board [STB] on issues of railroad liability in terms of what damages could occur in a major city** [see discussion below]. [2]

And it does not reflect adequate consideration, in addition to liquid oil “spills” as commonly understood, of the consequences of the **other kinds of other serious CBR derailment-caused “discharges”** [as included and defined broadly in HB 1449 Section 3 (10)] nor reflect the massive costs of the damages incurred in Lac-Mḗgantic and other CBR derailments beyond the bare “oil cleanup” costs.

Since the legislative language clearly indicates that various kinds of releases, including oil “spills and discharges” are at stake here, I will use herein the term “worst case scenario”, as used often in the precedent federal chemical accident regulations, generically as covering both kinds of potential CBR releases.

**I will suggest herein a more safety conservative approach and alternative ways of finding major federal regulatory precedents for definitions of “worst case spill of oil”.**

1. As an important issue that needs to be raised early on: UTC’s first three questions to potential commenters in the June 2015 time frame included this first one:

***“1. What is your definition of a reasonably likely worst case spill of oil?” [emphasis supplied]***

**This is, tellingly, a wholly different question -- introduced by UTC -- from the language of the HB 1449 [as also noted in Ecology’s comment in the docket]**, and the shift introduces complexities of probability analysis which not one of the subsequent commenters seemed to be familiar with, nor to be willing to take seriously. It seems, however, that later UTC staff, in their October 28, 2015 Comment Summary Matrix CR101, had abandoned any effort to deal with CBR release probabilities, so seemingly definitively taking this issue off the table:

***“Additionally, staff believes that reasonable worst case is a greater threshold than most probable number of cars punctured and believe the intent of the Legislature is to include a calculation that would represent something more than a “likely” number of cars being derailed.”***

But UTC staffers in their suggested cost methodologies using “reasonable worst case spill” smuggle back in some rough and decisively subjective probability calculations, for example in terms of allowing credit for railroads’ declared usage of lower speeds in Washington State. UTC reasonably rejects that notion, urged by the railroads, that their proposed rule pursuant to HB 1449 should assume that the new federal High Hazard Flammable Trains [HHFT] regulations will significantly lower CBR risks in the near future.

If the estimation of probabilities is a central feature as this regulation is finalized, staff should be aware that this is a new and very controversial set of issues, and should allow a new comment period for commenters to consider it thoroughly.

1. Furthermore, there is **no evidence that UTC itself actually asked the railroads for their own internal risk documents, what they know about their own disaster risks** – either on potential release consequences or on probabilities for a serious CBR release -- that would reveal their own railroad operative conclusions. Other serious state agencies have done so. [3] I will return to discuss this matter below.

Since there is no definition of “worst case oil spill” in the definitions Section 9 of HB 1449, I have inquired if there is any clear evidence on the record of the state legislature’s legislative intent in this specific matter of defining the “reasonable Worst Case Scenario”, but have so far found none beyond the UTC staff discussion quoted above and the legislative language in HB 1449 Section 10, discussed below. No such evidence seems to have been cited by the railroads or even mentioned by other major commenters on the proposed regulation. The railroads in their comments seem to have had problems even grasping the new reality that the state law will in fact require them to pay new fees [for cleanup and damage costs], and have threatened future lawsuits based on shaky assertions of preeminent STB jurisdiction for economic regulation of railroads or interference with railroad operations.

Puzzlingly, the HB 1449 Section 5 (3) mandate to UTC to “determine the contingency plan requirements for railroads transporting oil in bulk” does not include in the following subsections (4) through (11) a mandate that the railroad must provide calculations of its worst case scenario for oil discharges **as in other federal accident prevention and emergency response legislation and regulation** to be discussed below.

1. HB 1449 has “reasonable worst case spill” as a key regulatory feature **only in Section 10**, its new requirements for railroads annually to provide to UTC additional information on financial responsibility, with a legislative definition hinging on estimating the volume of oil spilled but **without specifying whether this relies on what has happened or what could happen in a serious CBR derailment**. The legislative language in Section 10 essentially punts this question down the line, in specifying that UTC must make decisions about “reasonable” railcar spill volumes and “reasonable” cleanup costs.

*NEW SECTION. Sec. 10. A new section is added to chapter 81.043 RCW 4 to read as follows: (1) The commission must require a railroad company that transports crude oil in Washington to submit information to the commission relating to the railroad company's ability to pay damages in the event of a spill or accident involving the transport of crude oil by the railroad company in Washington. The information submitted to the commission must include a statement of whether the railroad has the ability to pay for damages resulting from a reasonable worst case spill of oil, as calculated by multiplying the reasonable per barrel cleanup and damage cost of spilled oil times the reasonable worst case spill volume as measured in barrels. A railroad company must include the information in the annual report submitted to the commission pursuant to RCW 81.04.080 . [emphasis supplied]*

Neither the State Legislature nor UTC are, understandably, in their normal course of business used to dealing with calculations of worst case scenarios [WCS] for chemical releases [fire, explosions, toxic gas clouds]. The legislative mandate fails to require the railroad, for example, to provide the documentation the railroad itself, as the entity faced with enormous liability in case of a rail disaster, has for its own worst case scenarios for hazardous cargoes, which surely its provider of catastrophic insurance must require to see. [4]

**The key question is whether to define “reasonable” wherever it occurs in the law in terms of what has already happened or in terms of what could happen given the characteristics of the cargo**. Ever since the totally surprising [to everyone outside Union Carbide staff] urban toxic gas disaster in Bhopal India in 1984 that killed 10,000 overnight and injured some 100,000, **US federal chemical accident prevention policy has been based on what could happen.** The reason is that high-risk chemical companies were doing their own hazard assessments based on such calculations. [Immediately after Bhopal, Congressional investigations discovered that Union Carbide and other major US companies had done worst case chemical release scenario calculations showing consequences including urban disasters, but had not shared them with Bhopal citizens and officials nor with the at-risk American communities [specifically the Charleston WV sister Union Carbide plant using MIC, the same disaster risk chemical as caused the Bhopal disaster.]

**So it seems eminently “reasonable” for the agency to look at precedents from other closely analogous federal regulatory regimes.** [5]

1. **In fact, railroad commenters have pushed this on UTC and cited pointedly a favorite federal precedent, namely the brand-new and heavily preemptive hazmat HHFT transportation law. As UTC staff summarized BNSF’s comments in the agency’s “Comment Summary Matrix CR101”:**

***“BNSF directed the UTC to use the PHMSA federal enhanced tank car final regulatory impact analysis methodology on most probable number of cars punctured.” [emphasis supplied]***

This BNSF direction to UTC refers specifically to the brand-new [May 2015 Final Rule] federal rulemaking on High Hazard Flammable Trains [HHFT], which is heavily preemptive over state and local regulations. This was coupled in railroad comments on the proposed UTC regulations with the usual barely disguised threats of formidable future legal “challenge” by the railroad under federal preemption laws.

As BNSF first commented, on June 22 2015:

*However, the legislative mandate extends beyond simply providing financial information to the Commission. Section 10(1) also requires railroads to provide “a statement of whether the railroad has the ability to pay for damages resulting from a reasonable worst case spill of oil, as calculated by multiplying the reasonable per barrel cleanup and damage cost of spilled oil times the reasonable worst case spill volume as measured in barrels.” We predict that meeting the requirement of this provision through rulemaking will prove challenging for the Commission.*

*While the railroad does not have a suggestion at this time of what the appropriate thresholds might be, we simply caution that whatever threshold is reached may be seen as arbitrary and, therefore, vulnerable to challenge. Further, it seems that determining these thresholds individually at the state level could run afoul of the kind of patchwork of state regulations that federal statute and oversight of the railroads was initiated to protect against. To this point, work at the federal level to define these thresholds would preempt definitions at the state level, so careful observation of any federal activity will be important as this rulemaking proceeds.”*

**“Worst Case Scenario” is not, however, [unlike in some other federal regulatory regimes] a regulatory term used in that recent PHMSA HHFT rulemaking**, **nor** **anywhere,** **as far as I have experienced, by US DOT [PHMSA nor FRA] in their longstanding hazmat regulatory regimes for rail safety regulation**. Despite the evidence from some Congressional hearings that the railroads [perhaps in concert with their providers of catastrophic insurance] have performed their own hazard assessments [some versions of worst case scenarios in their own definitions of such] concerning the very serious consequences that they know their most dangerous rail hazmat cargoes could cause in major derailment releases, the railroads have never been forced to provide these documents for public scrutiny.

1. **UTCs’s proposed methodology for cleanup cost calculations**, not the focus of this comment, are also dubious in various ways.

**The UTC’s currently proposed WAC-480-62-125 definition, as used in WAC-480-62-300 section on Annual reports—Regulatory fees:**

**“Reasonable worst case spill” from a railroad company means fifty percent of the largest train load of crude oil, as measured in barrels, moved by that company in the previous calendar year.”**

The UTC “Note” on methodology that justifies this assumption in the definition does show a UTC effort to base it on a study of what crude oil accidents have already happened in North America, as DOT/PHMSA did in their rulemaking, while also taking account of evidence of current developments in national and WA train speed regulations and announced practices and other factors.

This UTC process for calculating fees is not a safety conservative regulatory practice. See, for example, the US EPA terminology re defining worst case chemical accident release scenarios and calculating Offsite Consequence Analyses to be reported to US EPA and local emergency responders, which is based not on what has happened but on what could happen. EPA guidance never suggests, for example, that half of a company’s chemical inventory in its largest tank be reported as a worst case release.

UTC’s calculations on what is reasonably likely to happen also rely on estimates on future railroad compliance with declared voluntary speed limits. Of course there is recent stark evidence that declared speed limits [whether set voluntarily and aspirationally by an individual railroad or the whole rail industry or mandatory federal limits] are not to be taken as always effective, and in fact gross train **overspeed due to human error or criminal negligence was a key causal factor both in the Lac-Mḗgantic runaway train disaster and in the most recent fatal Amtrak derailment**.

And relying as the UTC methodology does on the volumes of CBR shipments in WA in any given year is chancy, given the market-driven ups and downs of the oil business. [It is good that the UTC methodology tacitly recognizes that crude oil unit trains can travel on short lines as well as Class I railroads. Other super-risk cargoes such as chlorine gas railcars can also, of course, as illustrated in the short line Chicago, South Shore and South Bend Railway in being unwillingly forced to carry chlorine tank cars through Chicago, thereby incurring huge increases in their catastrophic insurance premiums.]

1. But, taking seriously the railroads’ suggestion of looking carefully at other federal disaster prevention regimes for examples of how respectably to define “worst case scenario”, **there are other federal regulatory regimes besides the PHMSA’s HHFT rule**, which have been existence many years before that rule, which have been concerned to protect public health and safety and sensitive environments from chemical release disasters, and **which have explicit “worst case scenario” chemical accident considerations and calculations as absolutely key features** in their regulations and guidance documents. [5]

These analogous and longstanding federal regulatory regimes are a useful source of insight **regarding what concerned at-risk citizens and public officials have thought necessary over the last few decades in federally regulating facilities with high-hazard chemicals.** A main insight there is that these concerned stakeholders want to see what risky facilities have done and are doing to prevent disasters, and what public agencies plan and can do in prevention and emergency response planning, in light of full scale potential Worst Case Scenario releases from these facilities.

The railroads’ lobbyists got them exempted by Congress from the earlier federal laws, however, and of course the key question in the UTC rulemaking at issue here is **whether the railroads will again be exempted by public officials** from having to provide the same kind of full worst case scenarios as thousands of other high-risk oil and chemical industry facilities have to provide annually. An interesting question is whether UTC has ever asked the WA CBR railroads’ insurance companies what methodologies they used to calculate their insurance premiums for railroads in WA at risk of potential CBR releases.

1. **An important threshold question here** is whether **the term “oil spill” used in HB** 1449 is to be taken to refer only to railcar and other facility releases without fire or explosions as have often been experienced in the CBR derailments occurring virtually monthly in North America. It is clear that the Washington State Legislature, like some other states’ legislatures reacting to CBR risks, has reasonably **nestled its new accident prevention legislation within the existing framework of oil spill/marine protection laws at federal** [see Section 1 (4)(e) and state levels, no doubt in part because federal preemption is much less onerous in the oil pollution regimes than in the federal hazmat transportation regimes. The law therefore often uses in seemingly a catchall way the term “oil spill”, without excluding other kinds of “discharges” from consideration.

And in working to bring crude oil carriers including railroads within the overall Oil Pollution Act framework, HB 1449 hews to the federal regulatory definition of “worst case spill” from that act, in HB 1449’s Section 2 (30) – which clearly turns on what could happen:

*(30) "Worst case spill" means: (a) In the case of a vessel, a spill of the entire cargo and fuel of the vessel complicated by adverse weather conditions; and (b) in the case of an onshore or offshore facility, the* ***largest foreseeable spill in adverse weather conditions****.*

**It would seem reasonable for a CBR train to be considered a single** facility in terms of its chemical release potential, given that the historical experience is that in CBR derailments one burning car sets others burning and exploding also, in a chain of what the chemical industry calls “knock-on effects”, and sometimes with catastrophic consequences to trackside communities and water resources. UTC has grappled with this issue rather well, but not without some worrisome assumptions as to the scale of the potential CBR releases that must be considered.

The following comments presume, therefore, that, as reflected in the very first statement of purpose language of HB 1449 on “safety and environmental risks” [Section 1 (1], and later on “oil spills and discharges” in Section 1 (4)(e)] **public safety concerns with various kinds of discharges such as fires and explosions underlie the enactment of HB 1449** as much as liquid oil spills into land or waters of the state. [See the deliberately broad definition of “discharge” in Section 3 (10)].

1. **What has been learned in recent federal major Congressional and regulatory agency discussions on railroad liability** is, first of all, an insight into the railroads’ longstanding pattern of keeping citizens and the environment at high risk and completely in the dark about **what the railroads know about these risks**. As the main liable party in a major derailment disaster, a railroad’s liability lawyers want to show insurers that the railroad has a keen appreciation of its major risks and what both carrier and insurer can privately agree are relatively adequate safety measures to reduce [but not eliminate] the most grave risks, with some level of insurance provided at an agreed premium for the lesser potential disasters, not for the full potential amount of damages. [6]

**By analogy, in some useful US STB discussions on hazmat rail liability, for example [see citations below], the railroads’ own expert estimated “hundreds of billions” in damages** from just one major derailment with Toxic by Inhalation [TIH – poison gas cloud, the main rail post-9/11 disaster potential of widespread citizen and official concern preceding the Lac-Mḗgantic disaster in 2013 ] cargoes such as the ubiquitous chlorine tank car. At-risk citizens are studiously kept in the dark about this. [7]

In the US DOT rulemaking, PHMSA’s DRIA suggested – as noted by UTC –that HHFT releases in future could be 10 derailments in 20 years, averaging $1.2 billion each and one super-accident costing $6 billion. Even the implementation in future years of the new federal HHFT regulations, the agency estimates, will not reduce the staggering Societal Costs of CBR accident by a very large fraction.

1. **There are three main federal regulatory precedents** **that UTC could have looked at**, the first two in which Congress and the implementing agencies [EPA and the US Coast Guard, respectively] chose to define WCS in terms of **what scale of catastrophic chemical release could happen**, vs. the third based on a DOT/PHMSA focus on what had already happened, with computations including a “scaling down” of the costs of the terrible CBR disaster at Lac-Mḗgantic, the last approach now adopted within the proposed UTC regulations.
2. **Two major Community Right to Know laws [CRTK] on chemical disaster emergency response [1986] and prevention [1990]:**

When US public officials began to get serious in the post-Bhopal India accident era [a Union Carbide facility toxic gas cloud killed 10,000 overnight and injured 100,000 in 1984] about chemical disasters, they enacted Community Right to Know [CRTK] laws in 1986 and 1990. [Railroads’ lobbyists got them exempted by Congress from both laws, not that they did not carry the same dangerous cargoes through major US cities.]

In both CRTK laws “worst case scenarios” for chemical releases were key concepts for rulemaking and subsequent public planning for prevention and response, so became the federally-promoted “language” for local community discussion of such risks and for the 4100 Local Emergency Planning Committees created by the laws which were mandated to create local emergency plans for the most risky facilities.

The laws covered 13,000 high-risk US chemical facilities, which beginning in the 1990s and are annually even now providing “worst case scenario” information on their most dangerous chemical stocks to EPA under the EPA’s Risk Management Program regulations.

**The chemical industry pushed hard to have the CRTK laws’ implementing agency, US EPA, define the key terms as the “most likely release”** from a given facility, arguing both that a maximum release was too unlikely to take seriously and that EPA should only consider smaller more frequent accidents by which the local ER forces would not be simply overwhelmed.

EPA steadfastly refused, and defined it in terms not of probability of accident, nor in terms of what had already happened, but in terms of what could happen, as the release of the product – using the highest capacity of the largest tank or set of interrelated tanks and pipelines on a given site. EPA decided the covered facilities should also provide “alternative release scenarios” for smaller amounts released, but without relaxing the key requirement for full-scale releases happening relatively instantaneously [the whole amount released within 10 minutes]. [8]

This US EPA decision was consistent with the vigorous international national chemical accident prevention discussion, in which the World Bank was prominent in promoting accident prevention, hosting an international conference in Washington DC, and consistently maintaining that every chemical accident was preventable by facility management, and that if you can imagine an accident that **could occur, it will occur** sometime.

US EPA CRTK implementing regulations also required facilities to provide data on the history of releases at each site, but tellingly never did tie the definition of a facility’s worst case scenario to releases which had already happened.

1. **The US Oil Pollution Act of 1990 [OPA]:**

**The “worst case discharge” scenario in OPA, as mentioned earlier, is similarly defined as what could happen given the capacity of the facility’s largest oil-bearing container,** e.g., the whole ship of oil goes down, or the largest storage tank on the site breaches, and in each case there is a sudden release of its whole oil cargo at once.

1. **The HHFT regulations by PHMSA:**

The discussions cited by UTC’s proposed rule quoted the Regulatory Impact Analysis underlying US DOT’s PHMSA regulations on High Hazard Flammable Trains [HHFT], finalized May 2015, were in the context of cost-benefit analysis, i.e., only concerned about the agency’s need to justify the cost of the new safety regulations to be imposed on the rail industry [and passed through to oil shippers, the refineries].

These new DOT regulations were admittedly less than maximally stringent for accident prevention, e.g., regarding speed or tank car puncture resistance, and neglecting completely key potential measures on volatility, etc., and were to be phased in over many years, as UTC has noted. They were mostly focused on lowering the severity of the accidents that would continue to occur under these half-a-loaf regulatory mandates.

Nonetheless the new PHMSA regulations would impose significant costs on the HHFT railroads, both mainline and short line, and DOT therefore had to display an adequate set of accident consequence potentials justifying the proposed regulations which arguably could lower these consequences [but not eliminate them].

1. **Washington State’s enacted HB 1449, by contrast, does not impose large costly safety mandates on the railroads operating in WA**. As the railroads often cite, there is heavy and longstanding federal preemption that prevents state action in all the key areas of safety measures that could significantly lower HHFT risks, including volatility of cargo, speed, routing, and railcar design**. Therefore UTC need not be focused on following the DOT precedent in “scaling down” the costs of Lac-Mḗgantic** or any potential worst case scenario for a CBR derailment.

**Since HB 1449 is essentially only an information law** as far as the railroads are concerned [railroads are burdened only with some minimal future contingency planning requirements – see Section 3 (b) and RCW 90.56.210 and significant exemption in Section 4 (3)], **WA citizens will be looking to UTC to bring the railroads at least into the light of transparency** regarding mandatory reporting on key matters such as disaster insurance and worst case scenarios. In addition, credible CBR worst case scenario information will be needed to inform the new state agency evaluation and planning activities mandated in HB 1449 Sections 25-28.

1. **The key risk-imposing feature in Crude by Rail accidents is that in severe derailments tank cars impact each other – one burning sets off others. So the accident potential, based on the capacity of the closely interrelated containers, [see discussion below of EPA’s definition of worst case release] is vast.**

**UTC should therefore define WCS based on the maximum capacity of a CBR train** traveling in the state [whether mainline or short line, as the Lac Mḗgantic railroad the MM&A was the latter] to carry a given number of CBR tank cars, given the eventual possible origins and destination of CBR trains. Shippers can use any tracks, provided they slow to required train speeds if the tracks are obviously known to be less adequate or in disrepair. [9]

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**END NOTES**

**[1]** As UTC may know, the WA Fire Chiefs Association has been for months requesting from the crude oil carrier railroads their four types of hidden risk documents [see letter attached], including notably their WCS. This request was publicly praised by Senator Cantwell in a Seattle press conference. Even though Community Right to Know may seem a discarded concept from the last century, it is apparent that all over North America citizen groups and public officials – and even major investor groups with crude oil shipper and railroad carrier stocks, such as the NY State Comptroller – are in the light of Lac-Mḗgantic and almost monthly CBR derailments with lesser consequences pressing the railroads to be transparent with their risk information.

**[2] Railroads' own experts in recent US Surface Transportation Board forums** have estimated TIH railcar accidents could reach costs of “many billions”, even hundreds of billions -- cf 1 25 12 CP Opening Statement, p. 3 [and attachments American Academy of Actuaries] re estimated cost of just one TIH tank car.   Cf. also UP Reply with Warren Beach Verified Statement p 2  and especially p 5 re estimates for TIH releases in large cities.

<http://www.stb.dot.gov/filings/all.nsf/6084f194b67ca1c4852567d9005751dc/8921b743ba54b009852579bf006f3ad8/$FILE/232027.PDF> Warren Beach is an AAR award-winning risk analyst in the railroad industry: <https://www.uprr.com/newsinfo/releases/human_resources/2013/0926_beach.shtml>

**[3] NYS Comptroller Investment chief wants oil train answers 6 8 15 Times Union**

***BY BRIAN NEARING* *Albany***

[**http://www.timesunion.com/tuplus-business/article/New-York-state-investment-chief-wants-oil-train-6312903.php**](http://www.timesunion.com/tuplus-business/article/New-York-state-investment-chief-wants-oil-train-6312903.php)

With the state pension fund holding about $1.8 billion in stocks from energy companies involved in crude oil trains, Comptroller Tom DiNapoli wants answers from them about steps being taken to reduce the risk of derailments, explosions and fires.

In letters written to 14 publicly traded companies, DiNapoli also asked how much insurance coverage they would have to pay for cleanups and damage if disasters struck. Last month, the Times Union reported that Canadian lawmakers are looking at imposing insurance requirements of up to $1 billion on rail companies that operate oil trains and that there are currently no such minimum insurance requirements in the U.S.

Letters from DiNapoli went out to oil giant Exxon Mobil, as well as a Miami-based energy financing company that owned oil carried on the train that blew up in Lac Megantic, Quebec, in July 2013. The explosion killed 47 people and incinerated much of the downtown.

That tragedy sparked a growing national debate over the safety of massive oil trains, which can include more than 100 tankers each carrying 50,000 gallons of highly flammable oil from the Bakken fields of North Dakota. There have been derailments and fires in North Dakota, Virginia and Alabama.

“We need to know what companies are doing to safeguard against future mishaps which can lead to serious legal liabilities for the companies. As trustee of the state pension fund, I am concerned that future liability claims may harm the interests of the retirement system’s members, retirees and beneficiaries,” said DiNapoli on Friday.

His letters also asked the companies to provide information on any efforts to reduce the flammability of oil before it is shipped, as well as to explain who owns the rail cars used to ship oil. Bakken crude is much more flammable than regular crude oil and federal officials recently adopted new rules to phase out the older, less-sturdy tanker cars.

The state pension fund holds about $1 billion in stock in Exxon Mobil. The fund also has $9.1 million in stock in World Fuel Services Corp., which owned the roughly 50,000 barrels of Bakken crude that damaged Lac Megantic in the derailment.

Last month, a Canadian judge ruled that three residents could sue both World Fuel and Canadian Pacific Railway Ltd., which had a subcontract with a smaller railroad to carry the crude, on a claim the two companies knew the oil was not properly identified as highly flammable, according to the Montreal Gazette.

World Fuel is preparing to defend itself in the class-action lawsuit. In March, the Associated Press reported that the company had declined to contribute to a proposed settlement fund for Lac Megantic victims. Other companies initially named in the lawsuit had pledged $270 million by late March, hoping to gain immunity, according to the Associated Press.

DiNapoli also wrote to the rail company CSX, which runs crude oil trains that travel through New York and the Port of Albany, where neighbors in the South End around the port have complained about a threat to community safety. The state holds about $96 million in CSX company stock.

Other letters went to oil producers Phillips 66 ($141.7 million in stock held), Hess ($46.5 million), ConocoPhillips ($214.8 million), EnerPlus Corp. ($3.8 million), EOG Resources ($157.9 million), Forestar Group ($1 million), Whiting Petroleum Corp. ($9.4 million), Marathon Oil Corp. ($53 million), MDU Resources Group ($8.3 million) and NewField Exploration Co. ($13 million.) All figures are based on current share prices and state pension fund holdings on March 31, the most current period provided by DiNapoli’s office.

[4] See note [2] and [6] herein.

[5] One non-regulatory but impactful federal example, by analogy, that could be characterized as “safety conservative”, since it is seemingly based on common-sense calculations of what could happen to endanger emergency responders: In case of a crude oil train derailment, if even one tank car of crude oil is involved in a fire, **Guide 128 of the respected federal US DOT Emergency Response Guidebook** that North American firefighters rely on has for many years [well before the Lac-Mḗgantic disaster] directed firefighters to pull back ½ mile and let it burn. And we have therefore not lost a single firefighter in all the experienced CBR derailments in the last three years.

A **recent vivid CBC video** of a 2015 Saskatchewan derailment fire event   
<http://www.cbc.ca/news/canada/saskatchewan/video-shows-fireball-at-clair-derailment-1.3346944> shows why firefighters’ lives are at risk if they are uninformed about flammable railcar derailments and the need to be conservative in “fighting” resulting fires.

**ER 2 workers burned Sask chems 10 7 15 Video shows massive fireball**

**6 rail cars derailed near Clair, Sask.** [CBC News](http://www.cbc.ca/news/cbc-news-online-news-staff-list-1.1294364) Posted: Dec 02, 2015 10:51 AM

[6] **The railroads use every available rationale – proprietary information, homeland security, etc. to withhold such risk information from the public**. But they surely have done their own Worst Case Scenarios, as evidenced by their repeated testimonies in Congress [pre-CBR crisis, so focused on Toxic By Inhalation cargo risks and liability] that they know they can cause huge disasters and therefore they buy all the catastrophic insurance they can [ only $1.0 to 1.5 Billion] from the private insurance market. But as they tell Congress, this is not enough and falls far short of what is needed [US DOT calls this a “market failure” in the HHFT rulemaking documents]. So the railroads have been regularly seeking a Price-Anderson Act type of indemnification, as Congress granted half a century ago to the high-risk nuclear power industry when it could not get adequate private insurance.

**Congress so far has been reluctant to relax the railroads’ safety imperatives** that result from their enormous potential disaster release liability [Congress just recently enacted in HR 22, however, a provision for a study of whether a new federal liability scheme for the railroads would be a good idea].

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|  | **Railroads lobby Congress over hazmat liability** (Reuters circulated the following article on April 4, 2007.)  [**http://www.ble.org/pr/news/headline.asp?id=18286**](http://www.ble.org/pr/news/headline.asp?id=18286)  CHICAGO -- Transporting hazardous materials puts U.S. railroads on the horns of a dilemma: They’re damned if they do, and damned if they don’t.  The major railroad companies say they are legally obliged to carry dangerous materials -- often toxic chemicals from chlorine to propane -- while facing unlimited liability for damages in the event of an accident. They complain it’s unfair that over 50% of their insurance costs go for hazardous materials, which make up just 0.3% of the freight they haul.  “This is one of the single most serious issues we face,” said Wick Moorman, Chief Executive Officer of Norfolk Southern Corp. “The potential liability is staggering.”  The railroads are, therefore, lobbying U.S. Congress to introduce liability limits and create financial support for serious accidents, action analysts say is overdue.  “For shareholders in these railroads it seems hardly fair to combine the legal obligation to haul hazardous materials with an unlimited liability potential,” said Tony Hatch, a railroad analyst at New York-based ABH Consulting.  “Often the costs associated with these goods means it simply isn’t worth it for the rails to carry them,” he added.  With imminent government action unlikely, however, some railroads are looking for ways to cut shipments of hazardous materials -- or Hazmat -- rather than wait.  “We are looking for alternative solutions to hauling materials that represent a significant risk to our business,” said Robert Grimaila, vice president of safety, security and environment at Union Pacific Corp. The company is working with plastics and chemicals giant Dow Chemical Co. to develop safer rail cars and reduce Hazmat volumes on the tracks through better planning -- using pipelines wherever possible, or looking to find chemical sources closer to customers.  Explosive mix  A rail accident involving Hazmat invariably makes headlines, due to the often explosive or toxic chemicals that are released.  This was the case for a CSX Corp. train derailment in mid-January in Kentucky, when a number of cars -- carrying a potential carcinogen used to produce synthetic rubber, chlorine residue and an industrial solvent -- burst into flames.  Eleven people were injured in the incident -- one of three so far in 2007 for CSX -- which may cost the rail company up to $30 million. CSX says it has a 99.99% Hazmat safety record and like other rails bemoans the obligation to haul it.  “We transport these materials not because we choose to, but because we are legally required to do so,” said Skip Elliott, CSX vice president for safety.  The major U.S. railroads express concern that insurance to cover Hazmat shipments is a huge and rapidly rising expense.  “The insurance costs associated with (Hazmat) have risen dramatically,” said Pat Hiatte, spokesman for Burlington Northern Santa Fe Corp., whose costs have increased 250% in the last five years.  In some cases, major railroads insure themselves because coverage is not available, but smaller U.S. railroads complain they simply cannot afford it.  “For a small railroad, a serious Hazmat accident would mean instant bankruptcy,” said Dave Mears, a spokesman at industry group the American Short Line & Regional Railroad Association.  Railroads that can afford insurance can, and do, include it in the billing process for their chemical company clients.  “Whatever the railroads are paying in insurance is passed on to us,” said Henry Ward, Dow Chemical’s transportation safety and security director.  Railroads say an even greater problem than insurance is the potential liability cost -- including lawsuits -- of a serious Hazmat accident that could run into billions of dollars.  “We’re in an untenable position,” said Tom White, spokesman for the Assn. of American Railroads. “We need a Hazmat liability limit, or remove the obligation to haul it.”  The railroads have lobbied Congress to introduce a Hazmat liability cap -- $300 million for an individual railroad, according U.S. House of Representatives officials -- and create a joint fund of railroads, chemical companies and government to cover damages up to $5 billion.  Officials at the U.S. Senate Committee on Commerce, Science & Transportation said a rail safety reauthorization bill is being prepared, but added it is too early to say whether Hazmat liability will be part of that legislation.  U.S. House Transportation and Infrastructure Committee spokeswoman Mary Kerr said rail safety and security -- not Hazmat liability -- is the committee’s top priority.  “What the railroads propose is difficult, as it would involve a minimum of at least another three committees,” she said. “It would be very complicated indeed.”  Support from chemical companies also seems unlikely.  Tom Schick, senior distribution director at industry group the American Chemistry Council, said that the obligation for railroads to carry Hazmat, safety regulations and liability for such shipments “all work the way they are supposed to.”  “The system is based on each party doing what they’re supposed to do properly,” Mr. Schick added. “And we’re happy with that.”  **Thursday, April 05, 2007** [**bentley@ble.org**](mailto:bentley@ble.org)  [**http://www.ble.org/pr/news/headline.asp?id=18286**](http://www.ble.org/pr/news/headline.asp?id=18286) |

[7] **The Chlorine Institute is the only** industry that has for many years publicly provided for free download on its website its own Worst Case Scenario analysis [e.g., with standard assumptions such as low steady wind in same direction, etc.], in Pamphlet 74, of the Worst Case Scenarios for all the chlorine gas containers in commerce. For the standard 90-ton chlorine tank car, the Institute’s calculations show on p. 26 a puncture release can result in a toxic cloud at a very dangerous level 15 miles downwind by 4 miles wide.

<https://bookstore.chlorineinstitute.org/mm5/merchant.mvc?Session_ID=4d17684db698df40d0272fd6f307fab2&Store_Code=ci2store&Screen=PROD&Product_Code=EPR0074-HC&>

No level of government, however, has thought that at-risk Americans deserve to see this information, much to mandate that other high-risk industries provide similar information. **So far** the experienced chlorine rail tank car gas cloud releases have been in tiny towns like Graniteville SC and Macdona TX, so few casualties.

Railroads own their tracks, but under their common carrier obligation cannot refuse to carry even spectacularly risky cargoes such as chlorine, ammonia, LPG or CBR to any destination a shipper wants to put out on their lines. [This lesson is driven home by previous controversies raised by the short line Chicago, South Shore and South Bend RR and by the main line Union Pacific RR regarding their respective risk and liability concerns about shipping chlorine tank cars through major cities as the chlorine shippers ordered.]

**[8]** [**http://www2.epa.gov/sites/production/files/2013-11/documents/chap-04-final.pdf**](http://www2.epa.gov/sites/production/files/2013-11/documents/chap-04-final.pdf)

**OCA Guidance document Chapter 4 Worst Case Scenarios**

[9] **One example of quite dangerous underplaying the potential dangers of crude oil** trains is the ongoing deployment nationally of emergency drills using less than worst case scenarios.

CBR accidental release scenarios as defined in recent local level CBR exercises designed to”test” local emergency response capabilities often involve just one or a few tank cars releasing crude oil without fire, spilling into a creek or wetland [MN], or five tank cars releasing less than their full contents [cf. FEMA’s first and belated 2015 urban CBR exercise in Jersey City NJ, with 5 cars releasing only partially, a total of 100,000 gallons – with still serious impact zones mapped for fire radiation, blast and toxic smoke impacts].

**These recent and hastily-devised CBR scenarios are deliberately chosen not to be Worst Case Scenarios, since they are designed to provide some testing of local ER capabilities, but not to overwhelm them**. Prominent US fire chiefs, by contrast, have been clear that a serious CBR derailment would be overwhelming, and goes way beyond their capabilities. This is also suggested by the ubiquitous and respected US DOT Emergency Response Guidebook’s [much less than worst case scenario] Guide 128 that directs in case of **just one tank car involved in a fire that the fire service should withdraw ½ mile and let it burn**. [Since Lac-Mḗgantic the railroads have in many localities arranged scores of deliberately mis-leading public relations exercises that are pretenses of local ER “preparedness”, and that invariably involve efforts to get media coverage featuring photos or video of firefighters training hoses of water or foam from very near a simulated crude oil tank car on fire – see typical photos from all over the US:]

**Whitefish MT “Local departments traveled to Colorado this year for specialized training to fight oil train fires” 11 29 14 Flathead Beacon**

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**Creston IL 7 28 15 :** [***http://www.rochellenews-leader.com/v2\_news\_articles.php?heading=0&story\_id=14529&page=72***](http://www.rochellenews-leader.com/v2_news_articles.php?heading=0&story_id=14529&page=72)

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**None of the published scenarios tested by US FEMA so far have involved any hint of a deliberate terrorist attack on a CBR unit train**, which could of course be carefully designed to cause as much spectacular damage as possible in iconic locations, either cities or critical waterways, etc. This potential certainly cannot be ruled out in the Northwest’s cities and treasured environments along crude oil routes. Studiously avoiding public discussion of potential terrorist-caused attacks seems a dangerous bet that nothing will happen. Since the 9/11 attacks, the railroads and chemical shippers have had quiet meetings of an inter-industry Joint Terrorism Task Force – slides from their meetings show that they have discussed at length the worrisome **potential for a well-planned terrorist hijacking of a hazmat train** and driving it full speed into a major chemical facility to cause maximum havoc. In part because the railroads have delayed implementing the improper train movement and collision avoidance technology in Positive Train Control [which Congress mandated by a deadline of 2015] until at least 2018, it would not be prudent to assume such an attack scenario is impossible to achieve.