BEFORE THE
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION

PETITION FOR RULEMAKING:
TANK CAR STANDARDS FOR THE EXISTING FLEET OF
DOT CLASS 111 TANK CARS
USED FOR PACKING GROUP I AND II MATERIALS;
AND REAL-TIME ELECTRONIC FREIGHT CONSIST DISTRIBUTION

SUBMITTED BY THE VILLAGE OF BARRINGTON, ILLINOIS AND TRAC

This petition is filed on behalf the Village of Barrington, Illinois ("Barrington") and The Regional Answer to Canadian National ("TRAC")[1] (collectively referred to herein after as "Petitioners"), on behalf of themselves and other similarly situated communities throughout the United States. Petitioners respectfully request the Pipeline and Hazardous Materials Safety Administration ("PHMSA") to apply any standards promulgated in PHMSA-2011-0059 governing construction of "new" Class 111 tank cars used for the transportation of Packing Group I and II materials to "existing" Class 111 tank cars that are currently used for the transportation of those materials.[2]

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[1] TRAC is an ad hoc coalition of local governments in northern Illinois that formed in 2008 to assure the interests of the region were being protected when Canadian National Railway (CN) applied to the Surface Transportation Board (STB) for approval to purchase the EJ&E rail line that runs in an arc around the greater Chicagoland area. Post-approval of that acquisition, the TRAC Coalition has continued to remain active during the oversight period the STB retained on the transaction to insure that CN is meeting its mandated mitigation obligations. Because the TRAC website enables members of the public to register complaints relative to CN operations on the EJ&E, TRAC has become a *de facto* forum for discussion of numerous issues related to rail freight operations across the country. That development highlights the fact that the general public must take its "seat at the table" when it comes to how freight rail operations are integrated into communities, and in providing a community perspective when the regulations that insure safe operational standards for the freight rail industry are being developed.

[2] Association of American Railroad's ("AAR") petition for rulemaking P-1577 (Docket ID: PHMSA-2011-0059) requesting amendment of the Hazardous

Petitioners wish to make it crystal clear that they fully support PHMSA's decision to accept AAR's petition for rulemaking. However, as the National Transportation Safety Board ("NTSB") has observed, AAR's proposed rule doesn't go far enough as it fails to encompass the existing fleet of DOT-111 tank cars used to transport Groups I and II materials.

Additionally, Petitioners request the institution of a rulemaking proceeding that would require railroads to provide emergency responders accurate, real-time information regarding the identity and location of all hazardous materials on a train when emergency responders are called into action. As Petitioners shall demonstrate, the lack of real-time information needlessly places the public, trains crews, and first responders at serious risk of harm, and adversely impacts the ability of local governments to respond to serious incidents in a timely and effective fashion.

Information and arguments in support of proposed action and cases that support and demonstrate the need for the proposed actions.

Because Petitioners lack extensive knowledge of the workings of the freight rail industry, this petition is largely based on the testimony of acknowledged experts and facts discovered and discussed in the accident report and recommendations of the NTSB, released February 14, 2012. That report relates to NTSB's thorough investigation of a June 2009 Canadian National Railway (CN) freight train derailment near Cherry Valley, Illinois.[3] The derailment resulted in the fatal release of ethanol from multiple breached rail tank cars. NTSB's report sets out a series of recommendations directed at various federal regulatory agencies, including PHMSA. Specific to PHMSA, the NTSB has recommended that PHMSA:

1. Begin a rulemaking procedure requiring that the type of rail tank cars breached in this derailment (DOT-111) be retrofitted with the necessary equipment to make them more "crashworthy" in derailment scenarios; and,

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Materials Regulations (HMR: 49 CFR Parts 171-180). *See* PHMSA Letter to Mr. Michael Rush from Dr. Magdy El-Sibaie, dated May 11, 2011.

[3] NTSB Number: RAR-12-01, *Railroad Accident Report—Derailment of CN Freight Train U70691-18 With Subsequent Hazardous Materials Release and Fire.*

2. Work with the Federal Railroad Administration (FRA) to require that railroads immediately provide to emergency responders accurate, real-time information regarding the identity and location of all hazardous materials on a train when emergency responders are called into action.

Statement of interest and summary of proposed action and an explanation of its purpose.

Petitioners, as local governments, are on the front lines of response when something goes wrong and a rail accident occurs. The impact of a catastrophic hazmat release in a derailment scenario -- and what that could mean in terms of devastating consequences in our communities -- is the nightmare scenario that spurs Petitioners' support for the NTSB recommendations to PHMSA in the wake of the Cherry Valley, Illinois incident and other derailments involving the release of Group I and II hazardous materials from DOT 111 tank cars during a derailment.[4]

Given the reality that whenever a tank car carrying Group I and II materials is breached during a rail accident, local emergency responders are on the frontlines of safeguarding the public welfare (as well as the safety interests of the railroad and its shippers), Petitioners clearly have a compelling interest

[4] Because the CN Cherry Valley derailment occurred in a nearby location and had fatal consequences, Petitioners are acutely aware that adoption of the NTSB recommendations is essential if community interests are to be protected. Over 340,000 people live in close proximity to the EJ&E rail line and could be impacted by a derailment and hazmat spill. According to the Draft Environmental Impact Statement that was released in July 2008 during the NEPA review for the CN/EJ&E transaction, we can expect that the number of carloads of hazmat materials transported on the EJ&E will increase by at least a factor of ten on 14 out of 15 segments of the 198-mile rail line. Furthermore, the EIS process for this transaction projected that there would be one hazmat spill per year on the EJ&E in the wake of CN's operations on the line. Concern about CN's transport of ethanol through the TRAC communities is further underscored by CN's 2011 Investor Fact Book, which outlines CN's expanding ethanol business: *"CN has access to 22 ethanol production facilities in the U.S. and Canada, with an estimated annual production capacity of 1.6 billion gallons. The Company provides efficient access to key consumers in the U.S. Midwest. CN also has access to an additional 700 million gallons of ethanol production capacity on U.S. short lines. CN's ethanol traffic has tripled since 2006, reaching close to 39,000 carloads in 2010."*

in petitioning for rulemaking before PHMSA. Simply stated, Petitioners are stakeholders in this matter and their concerns, which are shared by hundreds (if not thousands) of other communities and local governments, must be given equal weight in a regulatory environment where industry-led consensus standards for these tank cars have failed to adequately protect public safety.

DOT-111 tank car retrofit.

Petitioners reiterate that they fully support PHMSA's decision to accept the AAR's petition for rulemaking[5] requesting amendment of the Hazardous Materials Regulations (HMR: 49 CFR Parts 171-180). However, the proposed rulemaking must be broadened so as to encompass the existing fleet of DOT-111 tank cars used to transport Groups I and II materials.

Freight train transport of hazmat materials classified as Group I and II materials is increasing exponentially. According to the AAR's Bureau of Explosives, denatured ethanol was the top ranked hazardous material commodity transported by rail in North America in 2008. In addition, the NTSB's Cherry Valley investigation notes that, "[a]lthough pipelines are a preferred method for transporting petroleum products over long distances due to reliability and lower costs, ethanol is not currently shipped by pipeline because it is thought to cause stress corrosion cracking in pipeline walls."[6] It was also noted (*id.*) that "[i]n 2008, denatured ethanol was the top ranked hazardous material commodity transported by railroad in North America, with 218,902 tank car shipments originating in the United States."

In addition, a September 2007 United States Department of Agriculture (USDA) Backgrounder observed that "[i]n 2005, rail was the primary transportation mode for ethanol, shipping 60% of ethanol production or approximately 2.9 billion gallons of ethanol."[7] Furthermore, the May 2011 "Railroads and Ethanol" fact sheet produced by the AAR states that U.S. rail

[5] P-1577 (Docket ID: PHMSA-2011-0059)
[6] Document 58 of NTSB's Cherry Valley Investigation: "Hazardous Materials Group Chairman's Factual Report," dated February 22, 2010 at page 12.
[7] "Ethanol Transportation Backgrounder; Expansion of U.S. Corn-Based Ethanol from the Agricultural Transportation Perspective", U.S. Department of Agriculture, Agricultural Marketing Service, September 2007 at page 6.

carloads of ethanol increased 608% between 2000 and 2009 from 40,000 carloads in 2000 to 280,000 carloads in 2009.[8]

According to the Federal Railroad Administration (FRA), it was forced to look into the tank car standards for ethanol tank cars because of the "number of ethanol unit train accidents that have occurred in recent years."[9] During the course of the NTSB investigation, FRA Hazardous Materials Safety Representative William Schoonover told an NTSB investigator that the FRA *(id.)* "recognizes that ethanol unit trains seem to represent a significant risk for hazardous material releases by rail because of the high volume of shipments."

Schoonover also told NTSB that *(id.)* "there are approximately 36,000 to 37,000 tank cars currently in ethanol service and the average age of these cars is about 8 years." During the Question and Answer session of the February 14, 2012 public hearing held on the Cherry Valley accident, NTSB's tank car expert, Mr. Paul Stancil, noted that the AAR has a 40-year service life requirement for tank cars and that the FRA mandate is 50 years. Additionally, in his testimony, Stancil told NTSB board members that **a retrofit of existing tank cars is necessary because co-mingling cars "does nothing to improve the safety in an accident.... It doesn't make sense not to do something with the existing fleet."**[10]

USDA also noted in its 2007 ethanol backgrounder that "orders for new cars increased substantially in 2006 with a surge in ethanol plant construction and are expected to almost double this fleet in the next 2 to 2-1/2 years."[11] Additionally, in a September 29, 2011 meeting between the NTSB and FRA, a memorandum summarized one of the topics of discussion as follows: "There is a large demand for additional general service tank cars to provide for increased transportation needs of ethanol and crude oil in packing group II in the coming

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[8] "Railroads and Ethanol" Association of American Railroads Policy and Economics Department, May 2011, at page 1.
[9] Document 222 of NTSB's Cherry Valley Investigation: "Meeting with FRA Concerning February 6, 2011 Unit Train Derailment in Arcadia, OH" at page 3.
[10] Dialogue beginning at 1:20:47 in archived NTSB Cherry Valley Public Hearing video dated February 14, 2012.
[11] "Ethanol Transportation Backgrounder; Expansion of U.S. Corn-Based Ethanol from the Agricultural Transportation Perspective", U.S. Department of Agriculture, Agricultural Marketing Service, September 2007 at page 13.

years. About 10,000 cars are expected to be constructed this year at an investment of $600 million."[12]

Taken together, it is clear that this information demonstrates that the overall tank car fleet in ethanol service is quite young, thus ***a PHMSA rule that changes standards just for new cars but fails to require a retrofit of existing ethanol and crude oil tank cars will provide no real protection to the general public in derailment situations for decades to come.*** It would be one thing if the high incidence of failure in the DOT-111 tank cars was only recently known, but that is not the case. The NTSB's Cherry Valley investigation "Hazardous Materials Group Chairman's Factual Report" provides the history of when the flaws with the DOT-11 tank cars became known:

> *Among its numerous investigations of accidents involving the DOT-111 tank car, the Safety Board conducted a 1991 safety study in which it examined the performance of 84 DOT-111 tank cars in accidents that occurred between March 1988 and February 1989. The study found that 54-percent of the DOT-111 cars involved in these accidents released products, with head and shell punctures accounting for 22-percent of the releases. The study found that the rate at which the DOT-111 tank cars experienced head or shell puncture or failure was double that of the DOT-105, -112, and -114 pressure tank cars. The Safety Board concluded that the DOT-111 tank cars, which are frequently used to transport hazardous materials that pose a potential threat to public safety, have a high incidence of failure when involved in an accident. NTSB issued safety recommendations to RSPA, FRA, the Association of American Railroads (AAR), the Chemical Manufacturers Association (CMA), the American Petroleum Institute (API), and the National Fire Protection Association (NFPA) that included a recommendation that these organizations work together to improve the packaging of the more dangerous products (such as those that are highly flammable or toxic, or pose a threat to health through contamination of the environment) by developing a list of hazardous materials that should be transported only in pressure tank cars with head shield protection and thermal protection (if needed), and to establish a*

[12] Document 243 of NTSB Cherry Valley Investigation: "Hazardous Materials – Notes of Meeting with FRA Concerning Status of Ethanol & Crude Oil Tank Car Construction Requirement, 2/29/2011" at page 1.

working agreement to ship the listed hazardous materials in such tank cars.[13]

In its March 9, 2011 Petition for Rulemaking, AAR says that retrofitting the fleet of existing tank cars used to transport packing group I and II materials would supposedly cost "well over $1 billion over the life of a retrofit program."[14] The basis for that estimate should be carefully explored. On February 6, 2011, FRA stated that there were 37,000 tank cars in the ethanol fleet.[15] Yet on May 26, 2011, the AAR's Tank Car Committee T87.5 recommended against a retrofit because it "could potentially affect roughly 77,000 existing DOT-111 tank cars."[16] Given this obvious disparity, Petitioners wonder exactly how many DOT-111 cars could "potentially" be impacted. Even if it is the higher 77,000 figure, there is no avoiding the conclusion that these flawed cars are in service only because industry failed to act sooner to modify the standards that would have made them more crashworthy.

Petitioners note that the industry task force *(id.)* "estimated that the cost of modifying existing tank cars with jackets and head shields alone would be at least $15,000 per tank car." While the AAR claims that the retrofit costs cannot be justified because the cost of derailments was only $64 million over five years, Petitioners suggest that AAR's reasoning is grossly misleading. In order to determine the impact of the cost of retrofitting the existing fleet, PHMSA should note that the existing fleet has a future life expectancy of at least 32 years. Even if the estimated cost of the recommended retrofit is $15,000 per car, when amortized over thirty-two (32) years, the cost is less than $500 per year per tank car.

If PHMSA fails to take the long overdue step of requiring a retrofit of existing tanks cars carrying ethanol and crude oil, it essentially rewards industry for two decades of insufficient progress in insuring public safety with standards that make these tank cars more robustly crashworthy when hauling dangerous flammable materials. While we agree with AAR's decision to petition

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[13] Document 58 of NTSB's Cherry Valley Investigation: "Hazardous Materials Group Chairman's Factual Report," dated February 22, 2010, at page 26.
[14] March 9, 2011 Petition for Rulemaking letter to Dr. Magdy El-Sibae from Michael Rush of the Association of American Railroads; footnote 7.
[15] Document 222 of NTSB's Cherry Valley Investigation: "Meeting with FRA Concerning February 6, 2011 Unit Train Derailment in Arcadia, OH" at page 3.
[16] Document 215 of NTSB Cherry Valley Investigation: Addendum to the NTSBs Hazardous Materials Group Chairman's Factual Report at page 3.

PHMSA to amend standards for new tank cars, we believe that this is insufficient given the lengthy life span of a tank car and the average age of those tank cars that are now used for ethanol and crude oil service.

Furthermore, while AAR claims that derailment costs totaled approximately $64 million over the past five years, including equipment, lading, response and environmental remediation costs," [17] Petitioners question the accuracy of industry's cost-benefit claims. In reviewing the derailment cost chart at Attachment B of AAR's petition, PHMSA should note that there is no apparent accounting for costs associated with civil litigation in the wake of derailments. However, in the Cherry Valley/Rockford derailment, CN paid over $36 million in October of 2011 to settle a lawsuit brought by the family of only one victim. AAR's chart, however, reflects costs of only $8 million for that incident. [18]

Petitioners acknowledge the railroad industry's concerns that a retrofit of tank cars "may not individually be implementable across the existing fleet for a variety of reasons."[19] However, to the extent that some cars cannot be adequately retrofitted to meet the new standards, such tank cars should be prohibited from being used to transport ethanol or crude oil. NTSB tank car specialist Paul Stancil noted in his testimony to the NTSB Board members at the public hearing on the Cherry Valley derailment that "the retro-fitting issue would be a business decision; whether to retrofit or phase them out of service."[20] Either resolution to remedying the known flaws in the existing fleet of DOT-111 tank cars is acceptable to Petitioners; however, there can be no

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[17] March 9, 2011 Petition for Rulemaking letter to Dr. Magdy El-Sibae from Michael Rush of the Association of American Railroads at page 2, footnote 7.
[18] At the very least, Petitioners believe it would make sense for the PHMSA to ascertain the costs stemming from civil litigation for the entire list of derailments incidents that the AAR provided to your office on March 9, 2011. Even if it doesn't yet completely balance the cost-benefit equation in favor of public safety, Petitioners would guess that the plaintiffs' bar would look forward to securing ever higher awards for future victims of derailments based on the public record demonstrating that industry chose to do nothing meaningful in terms of investing in a retrofit program of tank cars that are known to be dangerous and that are increasingly serving as a rolling pipeline for the ethanol and crude oil industries.
[19] Document 210 of NTSB's Cherry Valley Investigation: AAR Tank Car Committee Task Force T87.5 Recommendation 10/12/2010 at page 1.
[20] Dialogue beginning at 1:21:45 in archived NTSB Cherry Valley Investigation hearing video dated February 14, 2012.

justification for the continued use of tank car equipment that has been determined to be unsafe by the FRA, the NTSB, and even the AAR.

Rail freight consist accuracy and dissemination.

In the Surface Transportation Board's 2008 decision approving CN's purchase of the EJ&E rail line, the region was explicitly reassured about hazmat spill safeguards:

> *"...the EIS shows that existing regulations, along with the applicants' current system of spill prevention and emergency spill response, and the voluntary and other mitigation the Board is imposing, will be adequate and more effective to address issues related to hazardous material shipments and possible spills..."* [21]

The STB's assessment is flatly contradicted by the NTSB report about the Cherry Valley derailment. Clearly, the NTSB report paints a very different picture of loopholes in existing regulations and extreme lapses in CN's spill prevention and spill response practices.

In addition to the DOT-111 tank car flaws already addressed in this petition, CN's failure to repost the emergency contact signage at the grade crossing impacted by the derailment following construction earlier in the year created significant delay in the ability of bystanders to know what railroad to contact to alert it to the wash-out of the ballast beneath the rail line. The NTSB reports that CN failed from the outset to operate the derailed train with an accurate consist on board. Nor did CN remedy that violation at any point in the 259 miles traveled between origination in Tara, Iowa and Freeport, Illinois. Finally, CN initially failed to provide timely and accurate consist information to emergency responders in the Cherry Valley derailment.

In the February 14, 2012 recommendations stemming from the Cherry Valley derailment, the NTSB makes only one recommendation that was designated as a "reiterated recommendation" – the need for the PHMSA and FRA to work together to "require that railroads immediately provide to

[21] STB Finance Docket No. 35087 Approval Decision #16 Dated December 24, 2008 at page 50.

emergency responders accurate, real-time information regarding the identity and location of all hazardous materials on a train."[22]

This reiteration stemmed from an earlier incident involving CN. On July 10, 2005, two freight trains collided head on in Anding, Mississippi -- killing all four train personnel involved; sparking a diesel fire that burned for fifteen hours; and, causing the evacuation of 100 residents from their homes. In its report on this derailment that was released on March 20, 2007, the NTSB identified a safety issue involving "the lack of accurate and timely train consist information for emergency responders."[23] Yet barely two years later, CN demonstrated once again in the Cherry Valley derailment that having an accurate consist to share with emergency responders in a timely fashion is not an operating priority.

It is Petitioners' understanding that Federal law requires that a train crew have an accurate consist detailing the position of train cars carrying hazardous materials. For the CN train involved in the Cherry Valley derailment, only three of the 76 ethanol cars were accurately reflected in the train's consist – a pattern of consist errors that had been uncovered by the FRA as early as 2006. As detailed in the NTSB's Cherry Valley investigation:

> *"In its 2006 National Hazardous Materials Audit, the FRA focused on the level of Class I railroad compliance with the requirements for train placement of hazardous materials shipments and accurate hazard communications information on train consists in the train crews' possession. The audit findings indicated that the rail carriers had an overall 13.2 percent defect ratio for train car placement and 6.6 percent defect ratio for hazard communications.* ***FRA determined that 22.3 percent of the 76 CN trains that it audited had improper hazardous materials car documentation, consist errors, train crews failing to update the train consist to reflect actual car placement, or trains dispatched with erroneous consist information.*** *(emphasis added) FRA noted that significant change was required of the Class 1 railroads in order to stem the level of*

[22] On-line NTSB Report Executive Summary posted at: http://www.ntsb.gov/news/events/2012/cherry_valley/index.html

[23] NTSB/RAR-07/01; PB2007-916301; Notation 7870A; Adopted March 20, 2007 at page vi.

noncompliance and ensure adequate levels of protection for train crews, emergency responders, and the general public."[24]

Nonetheless, FRA responded negatively to the NTSB's original 2007 recommendation to require accurate, real-time consist dissemination, stating that although (*id.*): "*the development of a national system that could electronically track tank car shipments of hazardous materials is being considered, the current practice of requiring hand-off of train consists remains the most accurate method of providing hazardous materials information to emergency responders when an event occurs.*" In response, the NTSB concluded that *(id.) "[o]n July 31, 2009, as a result of FRA's position that federal regulations are not needed to implement this recommendation, the Safety Board reclassified it as: Open - Unacceptable Response."*

From Petitioners' perspective, it is essential that the PHMSA understand clearly that current regulations for dissemination of a train's consist are not sufficient to facilitate the proper public safety responses that fall within the domain of responsibility of local government Emergency Management (EM) teams. For this reason, we will summarize the course of events surrounding the Cherry Valley accident that are buried in the NTSB investigation documents. Those events demonstrate that the FRA and industry are incorrect when they claim that a physical hand-off of a train's consist "is the most accurate method of providing hazardous materials information"[25] when an accident occurs.

- At 8:16 pm on June 19, 2009, Winnebago County 911 reached CN in Montreal, Canada to alert the railroad of a wash-out underneath its rail line in Cherry Valley.
- At 8:36 pm, the 114 car CN train, which included 75 tank cars of ethanol, derailed at the Mulford Road highway-rail grade crossing (MP 80.1) on the CN's Freeport Subdivision in Cherry Valley, Illinois.
- At 8:39 pm, the Rockford and Cherry Valley Fire Departments were dispatched to the scene of the derailment.
- At 8:46 pm, Cherry Valley fire command arrived at the scene and the Rockford fire command arrived shortly thereafter.

[24] Document 58 of NTSB's Cherry Valley Investigation: "Hazardous Materials Group Chairman's Report" at page 28.
[25] Document 58 of NTSB's Cherry Valley Investigation: "Hazardous Materials Group Chairman's Report" at page 28.

- At 8:55 pm, due to the major fire at the scene and a high pitch noise emanating from the derailed tank cars, the two EM teams moved response command back by a ¼ mile to protect the safety of the EM teams as they staged a response.
- At 9:12 pm, "Fire dispatch advised that per the railroad only 1 tanker contained ethanol. Command requested dispatch contact the railroad back and find out what other products were being carried as multiple tank cars were burning. Due to darkness and massive amount of fire it could not be determined if there were any pressurized cars involved or if all were non pressurized. No placards were visible using binoculars."[26]
- At about 9:15 pm, CN advised the Rockford fire department alarm office that "the train length was 114-cars, with 75 cars of ethanol and the rest of the train containing non-hazardous material.[27]
- At about 9:25 pm, Cherry Valley fire command contacted a known representative from another Class I railroad (Union Pacific/UP) to seek advice on dealing with burning ethanol as the EM team was receiving no proactive guidance from CN. That UP professional guided the response for the EM team, recommending that they let the ethanol fire burn itself out as there was no danger that doing so would lead to an explosion. The UP representative arrived at the scene at about 9:30 pm.
- At 10:20 pm, "the train crew arrived at the command post and presented to emergency responders the 114 car Freeport track list and the original Tara consist."[28] "The manifest showed that all tank cars involved in the derailment contained ethanol. The DOT Emergency Response Guide Book was checked for ethanol which said the evacuation radius for large fire involving rail car should be ½ mile. This was the radius that was already in progress."[29]
- Between 10:15 and 10:30 pm, two CN hazmat personnel finally arrived at the scene.

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[26] Document 66 of NTSB's Cherry Valley Investigation: "Fire Protection District Incident Report 09-0000765" at page 5.
[27] Document 58 of NTSB's Cherry Valley Investigation: "Hazardous Materials Group Chairman's Report" at page 5.
[28] Document 58 of NTSB's Cherry Valley Investigation: "Hazardous Materials Group Chairman's Report" at page 6.
[29] Document 66 of NTSB's Cherry Valley Investigation: "Cherry Valley Fire Protection District Incident Report 09-0000765 at page 5.

From a review of this chain of events in Cherry Valley, it is clear that the status quo regulations, which are dependent on the crew handing over the consist to emergency responders, are wholly insufficient to meet the needs of local governments charged with managing a hazmat spill response. Therefore, Petitioners respectfully request that PHMSA act expeditiously to mandate the adoption of real-time electronic dissemination of train consists so that no emergency response team is again faced with the incoherent and preventable chain of events that characterized CN's emergency spill response.

Frankly, with all the advances in technology that have been efficiency-drivers in all facets of the American economy, it is inconceivable that the railroad industry has not kept pace with technological developments that would enable real-time electronic dissemination of consists when an accident occurs. A large majority of 911 dispatch centers have internet-based, computer-aided communications systems in emergency vehicles that allow first responders to receive real-time dispatch updates while en route or at the scene of an emergency event.

Petitioners submit that it would not be a major technological hurdle for the railroad industry to email consist information and provide real time guidance on how best to manage the response to any hazmat materials released in an accident. With most 911 departments having the capability to instigate a reverse 911 alert to the public in the vicinity of an accident that instructs the public on any protective actions they should take, the rapid sharing with EM dispatchers of an accurate consist could literally save lives.

In addition to ignoring the technological advances that facilitate electronic distribution of consists, the rail industry's outdated mode of hard-copy consist dissemination to EM teams is not reflective of current operational realities surrounding the freight rail industry. In the Cherry Valley accident, it took the derailed train's crew nearly two hours to make their way to emergency response command and hand over the hard copy consist. If, however, crew members are injured or killed in an accident, a consist could not be handed over at all.

It is also well known that over the last several years, the railroad industry has been moving to the use of ever-longer freight trains – some as long as two miles. In an accident scenario, a train crew could find itself remotely located from the scene of actual damage and/or up to two miles or more from an emergency response command center.

Distance obstacles could easily become even more complicated in situations where the train crew is blocked from reaching the EM command center by intervening fire or explosions. In those circumstances, it is clearly unrealistic to believe that a physical hand-off of the consist would be timely in helping guide emergency response efforts. In fact, the locomotive engineer (Kenneth Slaughter) of the train involved in the Cherry Valley derailment described just that situation when reporting on the conductor's investigation immediately following the derailment: *"I asked him was he okay, he says, yeah, I'm okay and after that he got back to the 38th car which was basically our pickup from Freeport, the whole pickup, and he communicated to me over the radio that there was an orange glow, smoke and he just assumed that it was fire and that he had no intentions of going any further back because he was afraid if there was a fire, that it might work its way up towards him and he had no place to go."* [30]

Slaughter then went on to detail the crew's actions when it came to getting the consist to the EM team:

> *"Dispatcher notified me that the fire department, I think it was the Perryville fire department was on its way and to take care of the situation and look at what was going on out there.*
>
> *He did instruct Tom to see if Tom would go back and make a cut on the train and pull the train up a half a mile away from the area for security purposes. And after we got off of the radio talking to the dispatcher, I know Tom was kind of hesitant because of his safety to go back there and I was telling him I was based on past experiences I thought it was important that the conductor would be back there just in case there might be fire department people back there that need to know the content of our train and what we're carrying in our train, we need to divulge that information to them for safety purposes, but I also thought of you know too your safety is still at hand, so. He -- you know, it was his call to do what he needed to do so we basically -- he basically waited around. While we were waiting around, we were trying to look up the content of the cars and what procedure would be used to squash the fire if there was one through our hazmat material that we had with us.*

[30] Document 31 of NTSB's Cherry Valley Investigation: "6/29/09 Locomotive Engineer Interview Transcript" at page 13.

Q. Okay. What happened then?

A. Basically we just -- I believe we sat there and all of a sudden there was a fire rescue truck that approached us -- well, tried to approach us on the tracks, I think he got stuck and he had to back up and then he finally worked his way up to us. He indicated to us that he was instructed to convey to us that we had to get off the train and that he was going to take us to the command post." [31]

During the Q&A section of the February 14, public hearing on the Cherry Valley derailment, NTSB Chairman Deborah Hersman summed up the point of view of local governments when it comes to the rail industry's inexcusable lack of electronic dissemination of consists to emergency responders: "We've got it in aviation. We can zip the consist right to emergency responders. ... They need to get to that mature posture in rail too. The stakes are just too high. If you don't know what you are responding to, you don't know how to respond."[32]

Petitioners recognize that since 2009, PHMSA has been moving in the right direction on this front with its HM-ACCESS initiative (hazardous materials – automated cargo communications for efficient and safe shipments.) However, if progress is going to be made on the consist front, it is necessary for the PHMSA to conclude the efforts that were begun in 2009. The fact finding phase of the HM-ACCESS initiative should be completed and the rulemaking phase should commence.

Most importantly, Petitioners believe that the investigative record compiled by the FRA and CN's actions in the Cherry Valley incident make it clear that the railroads will not be incentivized to act in accordance with rules and regulations as they pertain to maintaining correct consists unless there is a significant cost-benefit driver. For this reason, Petitioners request that the PHMSA regulations stemming from the HM-ACCESS initiative be accompanied by significant fines for violations when consists of trains transporting a hazardous material in tank cars are found to be non-compliant; and, that the PHMSA require a system of random audits of consist accuracy that will drive compliance by the railroads.

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[31] Document 31 of NTSB's Cherry Valley Investigation: "6/29/09 Locomotive Engineer Interview Transcript" at pages 13 and 14.

[32] Dialogue beginning at 2:28:05 in archived NTSB Cherry Valley Investigation hearing video dated February 14, 2012.

Conclusion.

The railroad industry and packing group I and II shippers are on record in acknowledging that the DOT-111 tank car is flawed and that PHMSA must set standards to correct those flaws. As AAR concluded in its Petition for Rulemaking, "[p]romulgating enhanced standards for new cars used to transport packing group I and II materials is the logical next step following issuance of enhanced standards for PIH materials."[33] Petitioners submit, however, that promulgating enhanced standards for existing cars used to transport packing group I and II materials should be done in lock step with promulgating standards for newly manufactured cars. There is no rational reason to not require the retrofitting of the existing fleet consistent with NTSB's recommendation.

Furthermore, PHMSA should adopt NTSB's other suggested regulation and "require that railroads immediately provide to emergency responders accurate, real-time information regarding the identity and location of all hazardous materials on a train." Petitioners urge PHMSA to act expeditiously.

Respectfully submitted,

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Village of Barrington, IL and
TRAC

April 3, 2012

[33] March 9, 2011 Petition for Rulemaking letter to Dr. Magdy El-Sibae from Michael Rush of the Association of American Railroads at page 7.

VILLAGE OF BARRINGTON
a great place to live, work, and play

September 24, 2013

Mr. Jack Koraleski
President & CEO
Union Pacific Corporation
1400 Douglas Street, 19th Floor
Omaha, NE 68179

Via email: jackkoraleski@up.com

Dear Mr. Koraleski,

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Thank you for your letter of August 5 providing the Class I railroad perspective on the shipment by rail of flammable hazmat like crude oil and ethanol. While I had not intended to reply to it, current circumstances indicate that a further explanation of our April 2012 PHMSA petition are in order. However, before I outline our perspective on the matter, I would like to state that we, in the Village of Barrington and the greater Chicago region, appreciate the great support Union Pacific has provided to our communities during our long history of working together. I have very much enjoyed working with your many representatives in the area including Wes Lujan, and his predecessor, Tom Zappler.

The 2012 petition to PHMSA requested that federal regulators mandate a retrofit program for the existing fleet of DOT-111 tank cars, and that real time electronic train consist information be provided to local emergency responders in the event of a rail accident. On August 28, I offered testimony (attached) before the Federal Rail Administration and PHMSA in Washington, D.C. at a public meeting on rail safety. As explained in my commentary, in light of the horrific tragedy in Lac Mégantic, Quebec this summer that killed 47 people and caused hundreds of millions in ensuing damages, it is well past time for the entire rail industry – tank car manufacturers and lessors, shippers and the railroads – to address the "Ford Pinto like" DOT- 111 tank cars. It is imperative that the fleet be retrofitted, as these tank cars constitute two thirds of the fleet of rail tank cars carrying ethanol, crude oil and other flammable hazmat on unit trains across our country in ever increasing numbers.

None of the first responder training efforts you mention in your letter address the real issue of the necessity to **prevent** accidents from occurring in the first place. Clearly, the existing DOT-111 tank cars are a weak link and will remain so for the three-plus decades they will remain in service for the shipment of these flammable hazardous commodities.

Our 2012 PHMSA petition for rulemaking and my comments submitted to FRA & PHMSA last month were based on the findings of the National Transportation Safety Board and its investigation of the rail tragedy in Cherry Valley, Illinois in 2009.

While we understand that most of the DOT-111 tank cars that transport packing groups I and II materials are not owned by the rail industry, they are operated by the rail industry

for the transport of explosive and flammable hazmat. It is the rail industry, under the auspices of the AAR's North American Tank Car Committee, which sets the design standards for these tank cars. It is the rail industry that has ignored since 1991 the repeated warnings of the NTSB that these tank cars pose a high risk of rupture in a derailment and ignored the Board's recommendation to improve the standards. It is the rail industry that told regulators in 2011 that the cost of a safety retrofit for these tank cars would amount to about $15,000 per car. It is the rail industry that created the regulatory "crisis" that now exists in the aftermath of Lac-Megantic by failing to correct these safety flaws inherent in the DOT-111 decades ago.

While you correctly point out that the overwhelming majority of hazmat rail shipments safely complete their journey, it is the low frequency, catastrophically high impact incident like Lac-Mégantic that could be prevented with a retrofit investment. We have noted in our research on liability surrounding the common carrier obligation of railroads to transport hazmat like ethanol and crude oil, that the rail industry has voiced concern about covering the liability costs of "worst case scenarios" in a catastrophic release of hazmat. Industry has rightfully acknowledged that while the risk is minute, the cost implications are such that a nightmare scenario release could bankrupt even a Class I railroad. One can apply that same logic to a cost-benefit analysis of retrofitting the existing DOT-111's because it would minimize the scope of consequences in a train accident involving these tank cars.

It is for this reason, that we would ask UP to support a retrofit program in comments to PHMSA. By doing so, your company would be a leader in creating momentum for a profound step in the right direction on the rail safety front. As you stated in your letter, "UP is committed to working with you and the Village of Barrington to provide a safe and sound rail operation." Please join us, then, in encouraging the retrofit of the thousands of defective DOT-111 tank cars and assuring real time electronic train consist data to our first responders. In addition to providing job opportunities in the Chicago region given its base for numerous tank car manufacturers, these measures will also greatly enhance the safety of rail employees, cargo, rail infrastructure, residents, and the environment in communities across North America.

We look forward to a continued, strong partnership with Union Pacific.

Sincerely,

Karen Darch

Karen Darch
Village President

cc: T. Weisner, Mayor of Aurora, IL
D. Bennett, Executive Director, MMC

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Jack Koraleski President and CEO

August 5, 2013

Village President Karen Darch
Village of Barrington
206 South Hough
Barrington, IL 60010

Dear Village President Darch,

First and foremost, Union Pacific Railroad (UP) is proud to operate in the Village of Barrington and we appreciate the strong partnership we have developed. UP shares your commitment to rail safety and efforts to promote the safe and secure transportation of passengers and freight on the lines in your community. In light of your recent editorial in the Wall Street Journal, I would like to take the opportunity to provide you some information and perspective from a Class I Railroad, specifically UP's role and practices in the transportation of ethanol, crude oil and other hazardous materials on our trains.

In regards to rail tank cars, the railroad's primary role is to transport our customers' products using their tank cars. The predominant industry business practice is that the individual customer owns the tank car, or a leasing company owns the car and leases it to the customer. It is important to note that the vast majority of rail car leasing companies are headquartered and operate in the Chicagoland region. For example, GATX, GE Transportation, First Union Railcar and Union Tank Company are all headquartered within the City of Chicago or Cook County. These companies own billions of dollars in railroad tank car assets. Although the article focused on the railroads, we wanted to point out this important clarification as you continue your discussion on tank car safety improvements.

All of that said, UP and the entire rail industry work closely with tank car owners and manufacturers. The U.S. Department of Transportation (DOT), Transport Canada (TC) and the Association of American Railroads (AAR)-North American Tank Car Committee issue tank car regulations and standards. DOT and TC issue federal regulations, while the AAR-North American Tank Car Committee sets industry standards. The Tank Car Committee's standards exceed the federal requirements and DOT-111 tank cars for crude oil and ethanol ordered after October 2011 meet these Committee standards. Nearly 25 percent of the tank cars used to move crude today were built to the higher specifications spelled out by the Tank Car Committee – and that number will continue to grow. Also, regarding the retrofit estimate of $15,000 used in the Wall Street Journal editorial, industry experts have indicated that the cost is probably closer to four times that amount.

Through UP's emergency preparedness efforts and technological advances, we have taken extensive measures as a railroad and industry to increase the safe and efficient transporting of passenger and freight cars. As you may already know, a Class I freight railroad, such as UP, is

obligated to transport the products that our customers contract us to carry. As a common carrier, we transport all materials (hazardous or otherwise) in accordance with federal law, industry standards, and other operating rules to safely and efficiently move freight. Pursuant to federal law, transporters of oil (both non-hazardous and hazardous) are required to have a written emergency response plan. Union Pacific developed its Hazardous Material Emergency Response Plan (HMERP) to meet this requirement. UP also has an established Hazmat Team to respond to and manage incidents involving the release, or potential release, of "oils" during an incident.

To support these safety efforts, UP offers local communities the opportunity to participate in our extensive training and preparedness programs involving specialized safety training for rail personnel, as well as local first responders. In a typical year our training reaches about 10,000 people across our 23-state network. In fact, we recently conducted tank car training at our Proviso Yard on April 23 and participated in a multi-agency drill in Rochelle on May 8, 2013.

In 2012, railroads set new overall safety records, continuing a string of safety achievements reaching back decades. Although UP does not currently transport crude oil through Barrington, there are positive statistics provided by the AAR that demonstrate a tremendous safety record in moving hazmat, including crude oil. For example, an astounding 99.9977 percent of all rail hazmat shipments reach their destination without a release caused by train accident. Lastly, rail hazmat train accident rates have declined by 91 percent since 1980. These solid numbers demonstrate our industry's efforts in applying safety practices, policies and technology to make it one of the safest and most efficient forms of transportation.

Again, UP is committed to working with you and the Village of Barrington to provide a safe and sound rail operation. We want to continue our partnership on rail safety measures and enforcement. Thank you for your efforts to support the enhancement of safe practices. Please feel free to contact me if you have any questions.

Sincerely,

Jack Koraleski